FINAL
PRELIMINARY ASSESSMENT / SITE INSPECTION REPORT
FOR
FORMER ACCURATE WEAPONRY AND PLATING SITE
CLEARWATER, PINELLAS COUNTY, FLORIDA

Revision 1

November 21, 2006

Prepared for:

Florida Department of Environmental Protection
Under United States Environmental Protection Agency
State Response Program Cooperative Agreement #RP97484603
Twin Towers Building
2600 Blair Stone Road
Tallahassee, Florida 32399

Prepared by:

Tetra Tech NUS, Inc.
8640 Philips Hwy, Suite 16
Jacksonville, Florida 32256

PROFESSIONAL CERTIFICATION

Based on the information contained in the attached document titled Preliminary Assessment / Site Inspection Report for Former Accurate Plating and Weaponry Site located in Clearwater, Florida dated November 2006, I hereby certify that the scope of work described in the above-referenced document was performed in accordance with the appropriate geologic and hydrogeologic standards of practices.

Gerald Walker

Gerald Walker
Professional Geologist
Florida PG License Number 1180

November 20, 2006

Date

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ACRONYMS AND ABBREVIATIONS

bls	Below Land Surface
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CERCLIS	Comprehensive Environmental Response, Compensation, and Liability Information System
CFR	Code of Federal Regulations
CLP	Contract Laboratory Program
DCE	Dichloroethene
DNAPL	Dense Non-Aqueous Phase Liquid
DPT	Direct Push Technology
DQO	Data Quality Objective
EISOPQAM	Environmental Investigation Standard Operating Procedures and Quality Assurance Manual
ETET	Ecological Toxic Effect Threshold
FAC	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
ft	Feet or Foot
GCTL	Groundwater Cleanup Target Level
gpm	Gallons per Minute
GPS	Global Positioning System
HRS	Hazard Ranking System
IDW	Investigative Derived Waste
MCL	Maximum Contaminant Level
µg/L	Micrograms per Liter
mg/L	Milligrams per Liter
mg/kg	Milligrams per Kilogram
ml	Milliliter
msl	Mean Sea Level
NELAC	National Environmental Laboratory Accreditation Conference
NTU	Nephelometric Turbidity Unit
OD	Outside Diameter
oz	Ounce
PA/SI	Preliminary Assessment/Site Inspection
PCE	Tetrachloroethene
ppm	Parts per Million
PVC	Polyvinyl Chloride

ACRONYMS AND ABBREVIATIONS (CONTINUED)

PRG	Preliminary Remediation Goals
QAPP	Quality Assurance Project Plan
QA/QC	Quality Assurance/Quality Control
QORE	QORE Property Sciences
SC	Specific Conductance
SCTL	Soil Cleanup Target Level
SESD	Science and Ecosystem Support Division
SOP	Standard Operating Procedure
SQAG	Sediment Quality Assessment Guidelines
TCE	Trichloroethene
TEC	Toxic Effects Threshold
TEL	Threshold Effect Level
TtNUS	Tetra Tech NUS, Inc.
USEPA	United States Environmental Protection Agency
VOC	Volatile Organic Compound

1.0 INTRODUCTION

1.1 OVERVIEW

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this Draft Preliminary Assessment/Site Inspection (PA/SI) Report for site assessment activities conducted at the Former Accurate Plating and Weaponry Site located at 1937 Calumet Street, Clearwater, Pinellas County, Florida (hereafter, the Site). The geographical center of the Site is located at Longitude 82° 45' 27" West and Latitude 27° 59' 7" North within Section 25, Township 19 South, Range 30 East. The Site location is shown on Figure 1-1.

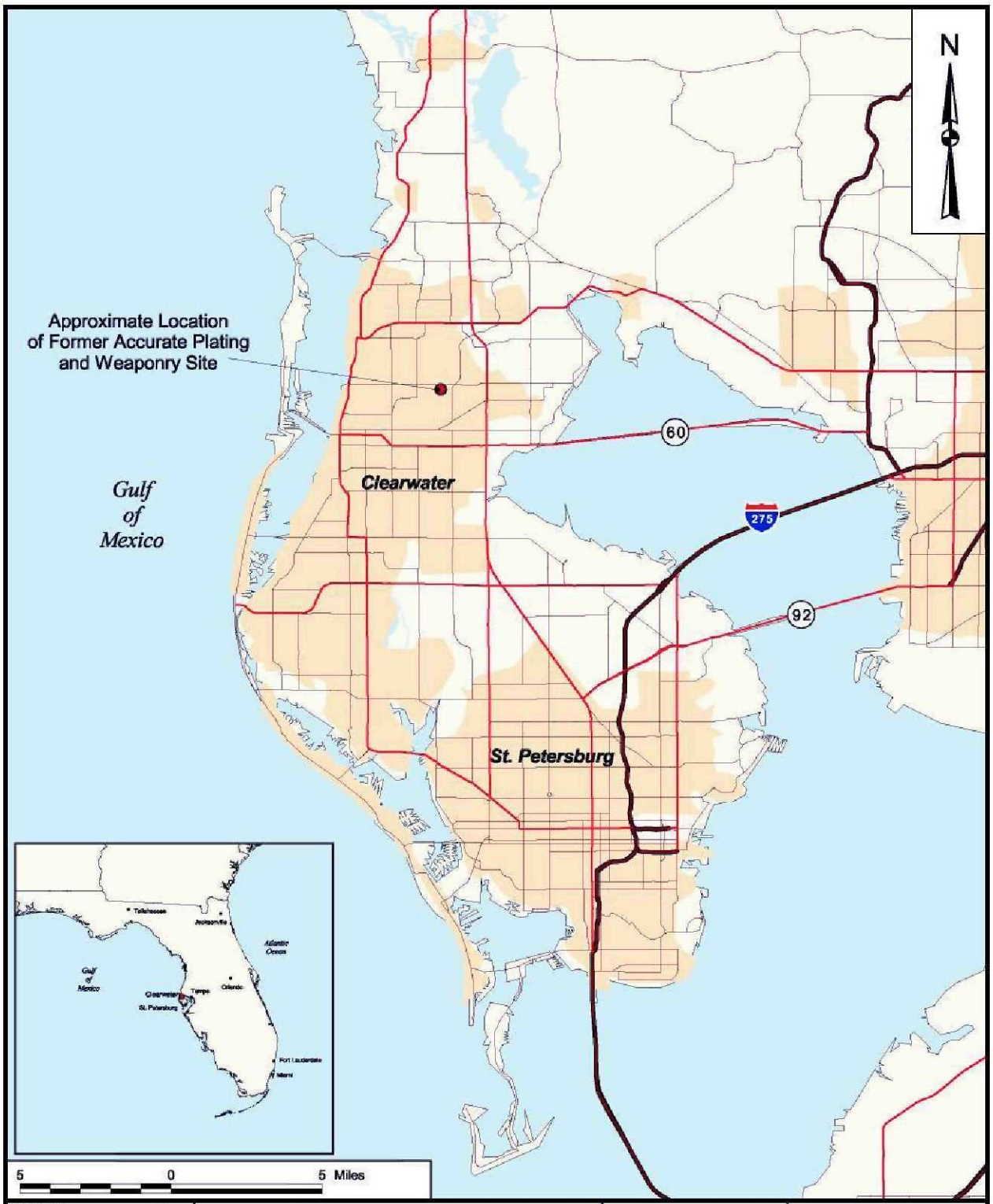
This PA/SI Investigation has been tasked by the Florida Department of Environmental Protection (FDEP) through Task Assignment 1A (PA/SI Work Plan) and 1B (Site activities and PA/SI Report) dated October 2005 and February 2006, respectively, under FDEP Contract Number HW525.

Activities conducted during this investigation were completed in general accordance with applicable portions of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980, 42 United States Code 9601 et seq., as amended by the Superfund Amendments and Reauthorization Act of 1986, Brownfield Revitalization Act of 2002 and Florida Statutes, Chapter 403. This report has been prepared in accordance to the United States Environmental Protection Agency (USEPA) guidance documents titled *Guidance for Performing Preliminary Assessments under CERCLA* dated September 1991 and *Guidance for Performing Site Inspections Under CERCLA* dated September 1992.

1.2 PURPOSE

The purpose of this PA/SI investigation is to a) determine whether a release of hazardous substances has occurred; b) determine if a contaminant source is present at the Site; c) evaluate the environmental impact(s) of contamination (if any) to the Site and nearby receptor pathways; and, d) provide the FDEP with sufficient data to complete the USEPA Hazard Ranking System (HRS) Scoring Evaluation [1]. Activities completed for this investigation include:

- Review of available site correspondence, maps, photo-documentation, historical documents, previous site investigations, and results from multiple database queries.
- Collect one subsurface [approximately 2 feet (ft) below land surface (bls)] soil sample, three surface (0-1 ft bls) soil samples and five sediment (0 to 6 inches bls) samples to evaluate soil and sediment quality at the Site.



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CHECKED BY: S. ROME — DATE: 3/29/06	SITE LOCATION MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME — DATE: 3/25/2006	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
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- Installation of one deep groundwater monitoring well.
- Collect five groundwater samples from the shallow aquifer zone, approximately 16 ft bls, and one groundwater sample from the deep aquifer zone (approximately 55 ft bls).
- Management and disposal of investigative derived waste (IDW).

1.3 DATA QUALITY OBJECTIVES

To guide investigation activities and to satisfy the purpose of the PA/SI, several data quality objectives (DQO) were defined. The DQOs for this PA/SI investigation and report are:

- Determine if a hazardous substance release has occurred, and if there is a contributing source present at the Site.
- Discuss findings from the PA (i.e., file review, historical documents, previous site investigations, etc.).
- Submit samples to designated Contract Laboratory Program (CLP) laboratories and non-CLP laboratories for analyses of volatile organic compounds (VOCs) and metals using USEPA Methods 8260B and 6010B, respectively.
- Assure quality assurance/quality control (QA/QC) items are satisfied as defined in the combined PA/SI Work Plan, QA Project Plan (QAPP), dated June 15, 2005, for the Site.
- Execute USEPA/FDEP Approved Sampling Program detailed in the Site PA/SI Work Plan.
- Evaluate field and analytical data generated from the PA/SI investigation.
- Provide FDEP with sufficient data to complete the USEPA HRS Scoring Sheet(s).

The remainder of this report is organized as follows:

Section 2.0: *Facility Setting.* This section presents the site description, site history, regional geology, local topography and hydrology, site drainage patterns, an overview of nearby sensitive environments and potential receptors, and an overview of previous and current site operations. Information obtained from the PA is incorporated into this section.

Section 3.0: *Methodology.* This section summarizes the objectives, rationale, and methodology used to complete assessment activities.

Section 4.0: *Results.* This section evaluates analytical data generated from sampling activities conducted during this investigation.

Section 5.0: *Discussion.* This section provides a detailed discussion pertaining to sampling results and assessment findings.

Section 6.0: *Summary and Conclusions.* This section provides a brief summary of the activities conducted in support of this PA/SI and presents recommendations for additional assessment, where appropriate, based on the results.

Section 7.0: *References.* This section provides a listing of the documents used during the development of this report.

2.0 FACILITY SETTING

2.1 SITE AND LOCATION DESCRIPTION

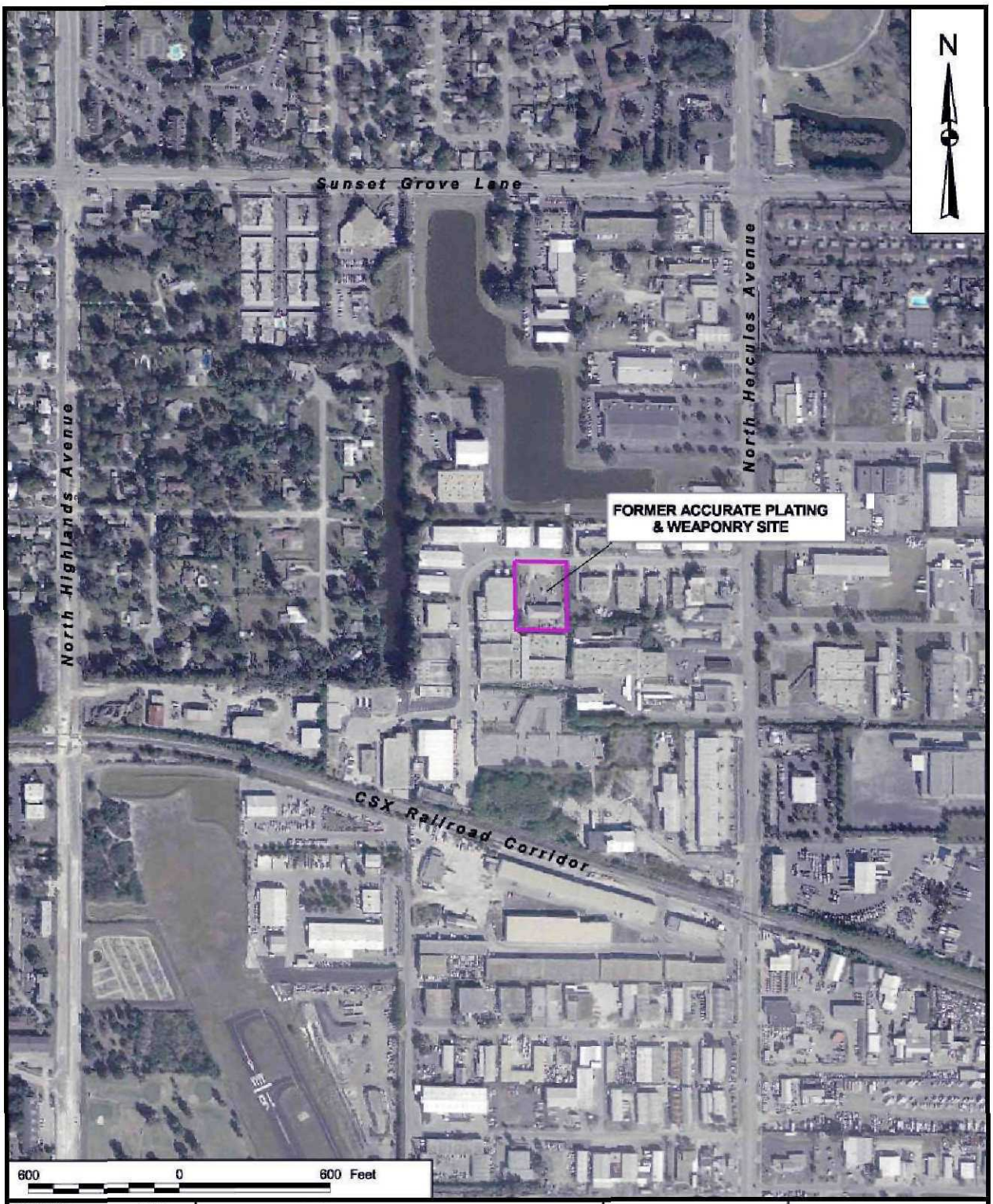
The Site is located at 1937 Calumet Street, Clearwater, Pinellas County, Florida. The general site vicinity is shown on Figure 2-1. This area of Clearwater is zoned for commercial/industrial use. The southern portion of the Site is occupied by a one-story concrete block building consisting of a six garage bays and an unpaved parking area located in the northern portion of the Site. Numerous inoperable automobiles and boats were observed along the southern property boundary. A small, dry swale, approximately 1.5-ft deep and 3-ft wide was also observed along the southern property boundary. The swale was heavily vegetated and appeared to be graded towards a small storm water outlet, which drained into Allen's Creek, a 15-ft wide by 10 ft deep drainage canal, bordering the eastern boundary of the Site [2]. Approximately 2 ft of standing water was observed in Allen's Creek with no apparent surface water flow. (i.e., the water appeared stagnant). Site details are shown on Figure 2-2

2.2 SITE HISTORY

Commencing in the late 1970s, Accurate Plating operated a gun refinishing facility in the eastern portion of the on-site building. Activities conducted at the Site included dismantling firearms, chemically removing the finish from firearms, rinsing parts, immersing parts in phosphoric acid solutions (i.e., "blueing") and electroplating gold, nickel, or hard chrome finishes onto weapon parts. Firearm parts were rinsed by either immersing the parts in overflow rinse water tanks or by hosing the parts by hand and allowing rinse water to discharge onto the floor. The rinse water was subsequently directed outside of the building onto the ground via discharge ports located near the base of the eastern wall of the building. The property is currently owned by Clearwater Top, Inc. and leased to a variety of small business. [2].

2.3 REGIONAL GEOLOGY AND HYDROGEOLOGY

The Site is located within the Gulf Coastal Lowlands Geomorphologic Feature of the Central Geomorphologic Province of Florida. This area also comprises various karst terrain features, such as, sinkholes (predominantly cover-collapse) and sinkhole lakes. Three hydrostratigraphic units – the surficial aquifer system, intermediate aquifer system/confining unit, and the Floridan aquifer system – exist in the site area [13, 14, 16-18].



DRAWN BY: C. SPEHAR — DATE: 3/20/06	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S. ROME — DATE: 3/20/06	SITE VICINITY MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S.ROME — DATE: 3/25/2006	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
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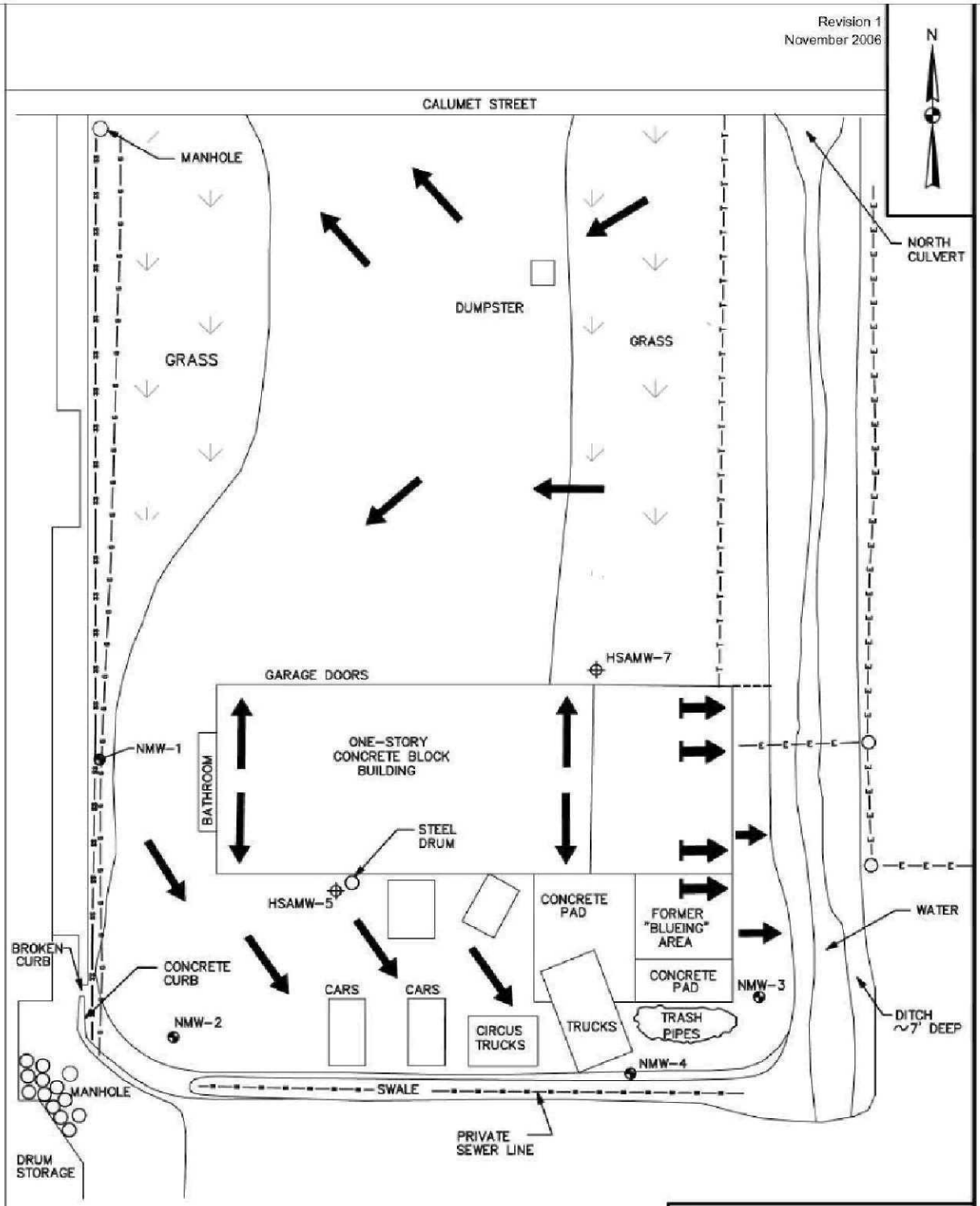

LEGEND:

- NMW-4 — MONITOR WELL INSTALLED BY HSA IN 1993 AND 1994
- HSAMW-5 — MONITOR WELL INSTALLED BY QORE IN 2004
- SANITARY SEWER LINE
- ELECTRIC LINE
- TELEPHONE LINE
- GAS LINE
- SURFACE DRAINAGE
- FORMER DISCHARGE PORTS

0 50 100
GRAPHIC SCALE IN FEET

DRAWN BY: C. SPEHAR — DATE: 3/20/2006	Tetra Tech NUS, Inc.	TASK/ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S.ROME — DATE: 3/20/2006	SITE DETAILS MAP PRELIMINARY ASSESSMENT / SITE FORMER ACCURATE PLATING 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME — DATE: 3/25/2006	
COST/SCHEDULE-AREA		APPROVED BY: — DATE: —	
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The surficial aquifer system generally consists of Pleistocene to possibly Pliocene age fine to medium grained quartz sand and shelly sand. These deposits grade downward to sandy clay, marl and some interbedded clay. Organic material and silt commonly form a hardpan layer 5 to 10 ft bls. This hardpan acts as a semi-confining bed that restricts the vertical movement of water. A gray to white, tan, phosphatic limestone forms the base of the aquifer in some portions of Pinellas County. In the Clearwater-Dunedin area, an organic rich, dark-brown to black, very fine grained sand occurs near the base of the aquifer system [13, 14, 18, 19].

The surficial aquifer exists under unconfined conditions and the water-table is found generally less than 5 ft bls in Pinellas County. The water table may be more than 6 ft bls in topographically high, well drained areas; however, the top of the water table is encountered within 3.7 to 5.6 ft bls at the Site. The saturated thickness of the surficial aquifer in Pinellas County averages about 30 ft throughout most of the county. The aquifer ranges in thickness from approximately 40 ft along the Pinellas Ridge to more than 80 ft in the western part of St. Petersburg. The base of the surficial aquifer is primarily derived from local rainfall. Surficial aquifer groundwater migration is generally directed toward the northeast or north-northwest, but on-site shallow groundwater is directed to the southeast, towards Allen's Creek [2(p.8), 11 (Sec 2.5.1), 16 (p.11)].

Underlying the surficial aquifer system are the Middle and Upper Miocene Deposits, the lower Miocene-age Arcadia Formation and the Tampa Member of the Arcadia Formation. The Arcadia Formation and the Tampa Member comprise the Hawthorn Group in Pinellas County. These Miocene-age deposits jointly form the intermediate aquifer system/confining unit in Pinellas County. Low permeability portions of the upper Tampa Member of the Arcadia Formation form the base of the intermediate aquifer system/confining unit [13, 14, 15, 18, 19].

The Middle and Upper Miocene Deposits, also referred to as the Alachua Formation, predominantly consist of blue to gray clay, fine-grained sandstone and weathered lumps of limestone are generally less than 50 ft thick. This unit is limited in lateral extent, being present only between Clearwater and Palm Harbor, but the unit was encountered in an on-site soil boring at a depth of 16 ft. These deposits do not yield significant quantities of water due to their large clay content. The Arcadia Formation is composed predominantly of limestone and dolostone with various amounts of sand, clay and phosphate grains. Thin beds of quartz sand and clay are dispersed throughout the Arcadia Formation. The Arcadia Formation is generally present in the southern part of the county and thins to the north. The Arcadia Formation pinches out north of Coachman and is absent in northern Pinellas County. The top of the Arcadia Formation is found at sea level in the north-central part of the county to 50 ft below sea level in the St. Petersburg area. This bed of sand within the Hawthorn Group may yield water to domestic wells. However, these sands have low permeability and are discontinuous making them a poor water producer.

The intermediate aquifer system thins to the north and is absent in central and northern Pinellas County. Low permeability beds within the Middle and Upper Miocene Deposit and/or Hawthorn Group restricts the vertical movement of water to and from the overlying surficial aquifer and underlying Floridan aquifer system [2 (Appendix C), 13-15, 18, 19].

The Floridan aquifer system is the major source of potable groundwater in the area. The system consists of a series of limestones from the Eocene to early Miocene age, which collectively function as a single hydrologic unit. The aquifer ranges in thickness from 1,000 ft (north Pinellas County) to 1,200 ft (southern Pinellas County) throughout the county [13, 16].

The Floridan aquifer system includes, in ascending order, the Ocala Limestone, Suwannee Limestone, and permeable limestone beds (Tampa Limestone) of the Tampa Member of the Arcadia Formation. The Ocala Limestone is not an important component of the Floridan aquifer system in Pinellas County due to its depth and the productiveness of the Suwannee and Tampa Limestones. The Tampa Limestone – an early Miocene-age deposit, consisting of white to light tan, sandy, fossiliferous limestone with chert fragments – forms the upper layer of the Floridan aquifer. The top of the Tampa Limestone, the top of which is highly variable, is first encountered at sea level in the Tarpon Springs area to 120 ft below sea level in the St. Petersburg area. This variability of depth reflects the irregular surface of the Tampa member caused by numerous pinnacles and sinkholes. The Tampa Limestone contains numerous solution channels. The Tampa Member is underlined by predominantly white to cream-colored, hard, fossiliferous limestone of the Suwannee Limestone [13].

Water in the Floridan aquifer system exists under water-table conditions north of Palm Harbor and west of Lake Tarpon. An 8-inch diameter well open in the upper Floridan aquifer system can yield several hundred gpm of water. Water from the Floridan aquifer is generally hard, particularly water from the Suwannee Limestone. In addition, local Floridan aquifer groundwater is not potable due to saltwater intrusion [chloride concentration approximately 585 parts per million (ppm)] [11, 13 (p.40), 13 (Figure 16)].

Regional groundwater flow in the upper Floridan aquifer is generally ill-defined in the county. However, local (near-coastal) groundwater flow is directed northeastward toward Old Tampa Bay [11 (Section 2.5.1), 13, 14, 18-21]. Recharge to the Floridan aquifer system varies from none to very low in southern Pinellas County to low to moderate in north Pinellas County [13, 14, 18-21].

2.4 SITE-SPECIFIC GEOLOGY AND HYDROLOGY

Surface soil (0 to 2 ft bls) and shallow subsurface soil (2 to 6 ft bls) at the Site is a brown to dark brown, silty sand. Subsurface soil from 6 to 14 ft bls is characterized as light brown to light gray silty sand. From 14 ft to 17 ft bls the subsurface soil consists of gray silty clay. Previous studies at the Site indicate that

groundwater occurs under unconfined conditions approximately 6 ft bls [2]. Shallow groundwater flow at the Site is to the south/southeast towards Allen's Creek, located along the eastern border of the Site.

2.5 POTENTIAL RECEPTORS

2.5.1 Groundwater Migration Pathway

Two of 15 municipal supply wells operated by the City of Clearwater are located within 0.5 mile of the Site. Four additional Clearwater municipal supply wells are located between 0.5 and 1 mile of the Site, a fifth supply well is located approximately 2 miles from the Site, and the remaining eight wells servicing the municipal water supply system are located between 2 to 3 miles of the Site. The Clearwater municipal water system provides drinking water to an estimated service population of 109,350. Approximately 22.7 percent of the water supply is derived from municipal wells, while the bulk of the system's drinking water is purchased from Pinellas County [2 (p.13), 22, 24].

The City of Dunedin operates 20 municipal supply wells within a 4-mile radius of the Site. Water drawn from the wells is treated by reverse osmosis prior to distribution to a service population of 37,227. Five of the wells are located between 1 to 2 miles of the Site. Another 12 of the wells are located between 2 to 3 miles of the Site. The remaining two municipal supply wells are located between 3 to 4 miles of the Site [23, 24].

2.5.2 Surface Water Migration Pathway

Allen's Creek, a 15 ft wide and 10 ft deep drainage canal, borders the eastern boundary of the Site and a 3 ft wide and 1.5 ft deep swale borders the southern boundary of the Site. These two site features are designed to collect surface water run-off. The direction of surface water flow in these two site features is not confirmed; however, it appears the southern swale was designed to channel surface water easterly into Allen's Creek. Surface water flow in Allen's Creek likely flows to the north based on the presence of a retention pond located just north of the Site. This retention pond appears to be a central collection point for surface water run-off in the immediate area [22 (Figure 5)].

2.5.3 Soil Exposure and Air Migration Pathways

No residential areas, schools, or day care centers are located in close proximity to the Site. The Site and the immediate surrounding area is commercial/industrial. According to the FDEP Tiger Database, 1,505 and 10,725 people are located between 0.5 and 1 mile, respectively of the Site [31].

2.6 PREVIOUS INVESTIGATIONS

In 1986, FDEP conducted an inspection of the Accurate Plating operation at the Site. During the inspection, a slight soil discoloration was observed near the base of the northeastern discharge port. A cracked and leaking polypropylene drum of spent chrome solution was also observed on a concrete pad outside of the southeast corner of the building [2 (p.2)]. Following the site inspection, HSA Environmental conducted on-site sampling investigations that included the installation of several soil borings and monitoring wells (designated with an "HSA" prefix) and the collection of several on-site soil and groundwater samples. Analysis of the groundwater samples indicated the presence of tetrachloroethene (PCE) at 47.57 micrograms per liter (µg/L) and trichloroethene (TCE) at 45.64 µg/L in monitoring well HSAMW-3. Additionally, benzene (0.47 µg/L) and trans-1,2-dichloroethene (DCE; 0.73 µg/L) were detected in monitoring well HSAMW-6 and -7, respectively [4, 2(p.2)]. Sediment and surface water samples were also collected from two locations in Allen's Creek. The sediment and surface water analytical results indicated a lead exceedance of the Florida Sediment Quality Assessment Guidelines (SQAGs) Threshold Effect Levels (TEL) of 30.2 mg/kg in one sediment sample [2, 12].

On October 29, 1998, QORE Property Sciences (QORE) supervised the installation of a permanent shallow monitoring well to evaluate water quality in the vicinity of HSAMW-3 [2 (p.3)]. The new monitoring well (MW-7) was installed approximately 6 ft east of monitoring well HSAMW-3, and completed to a depth of 13 ft bls [2 (p.3)]. MW-7 was sampled on October 30, 1998. The analytical results indicated contamination from cis-1,2-DCE (11,000 µg/L), PCE (1,700 µg/L), and TCE (580 µg/L). The detected concentrations were in exceedance of applicable federal maximum contaminant levels (MCLs) and Florida Groundwater Cleanup Target Levels (GCTLs); however, the source of contamination was not identified [2 (p.3), 8, 10].

From October through November 2000, QORE conducted a follow-up contamination assessment, in which near-surface soil samples (0 to 1 ft bls) were collected and screened for VOCs; two piezometers and two monitoring wells (MW-8 and MW-9) were installed; groundwater elevations were measured in piezometers, as well as, existing and newly installed wells; groundwater samples were collected from six of the monitoring wells; a sediment sample was collected from a swale on the southern border of the Site; and a sediment sample and a surface water sample were collected from the canal on the eastern border of the Site [2 (pp. 10 – 12)]. All samples were analyzed for volatile organics and halocarbons; however, metal analysis was only performed on soil and sediment samples [2 (pp. 10 – 12)]. Volatiles and metals were not detected in the soil or sediment samples, with the exception of chromium. Chromium was detected in exceedance of the FDEP leachability soil cleanup target level (SCTL) in the soil [2 (p.11), 9]. Although the analytical results indicated the soil, sediment, and surface water samples were free from elevated levels of contaminants, the groundwater analytical results indicated elevated levels of VOCs. VOCs were detected in several groundwater samples from monitoring wells MW-7, HSAMW-4, MW-8,

and MW-9. The highest contaminant concentrations, including cis-1,2-DCE at 4,200 µg/L, PCE at 300 µg/L, TCE at 170 µg/L, and vinyl chloride at 4.8 µg/L, exceeding federal MCLs and FDEP GCTLs were detected in samples collected from MW-7. Additionally, a groundwater sample collected from HSAMW-4 contained cis-1,2-DCE and PCE in excess of federal MCLs (1,000 and 3.2 µg/L, respectively) and FDEP GCTLs (70 and 3 µg/L, respectively). Cis-1,2-DCE, PCE, TCE, and vinyl chloride were absent from the background well (MW-9), previously located on the western portion of the Site near current monitoring well NMW-02. Additional VOCs were detected in the groundwater samples; however, none of the concentrations exceeded regulatory standards [2 (p.12), 10]. Following the investigations the Site was submitted to the FDEP Site Screening Superfund Subsection for CERCLA screening on April 2, 2003 [24].

3.0 FIELD METHODOLOGY

3.1 SITE ACTIVITIES

Sampling activities to investigate soil, sediment, and groundwater quality at this Site were conducted in two separate sampling events. The initial site reconnaissance, utility clearance, field operations management (i.e., coordinating with FDEP for site access, obtaining field equipment, etc.), and subcontractor procurement and coordination occurred prior to commencement of field activities. The first sampling event was conducted on August 8 to 11, 2005. The first event involved the following field activities:

- Installing and developing one deep (approximately 65 ft bls) monitoring well (NMW-08).
- Collecting three surface (0 to 1 ft bls) soil samples, five sediment (0 to 6 inches) samples, and one subsurface (approximately 2 to 3 ft bls) soil sample.
- Collecting five groundwater samples from the shallow aquifer zone (approximately 16 ft bls) and one groundwater sample from the deep aquifer zone (approximately 55 ft bls).
- Submitting soil, sediment and groundwater samples for laboratory analyses of VOCs and metals using USEPA Methods 8260B and 6010B, respectively.

As a result of uncertainties related to sample custody, which occurred at the USEPA Regional Laboratory from the first sampling event, a second sampling event was conducted to recollect all first event samples. This event was conducted on December 6 to 8, 2005.

Locations of soil, sediment, and groundwater samples collected during the first event were closely replicated for the second event. A comprehensive list of environmental samples collected during the second field event, including sample designation, sample depth, sample medium, sample analyses, and collection rationale is provided in Table 3-1. Environmental sample locations from the second, and transitively the first, are depicted on Figure 3-1.

TABLE 3-1
SUMMARY OF SAMPLING ACTIVITIES
FORMER ACCURATE WEAPONRY AND PLATING SITE
CLEARWATER, FLORIDA

SAMPLE ID	SAMPLE DEPTH OR SCREEN INTERVAL (FT BLS)	ANALYSES	RATIONALE
SEDIMENT			
APW-SED01	0 – 0.5	USEPA 8260B, USEPA 6010B	Assess environmental sediment quality in Allen's Creek located along eastern property boundary.
APW-SED02			
APW-SED03			
APW-SED04			
APW-SED05			
SOIL			
APW-SS01	0 – 1	USEPA 8260B, USEPA 6010B	Assess environmental soil quality of drainage easement located along southern site boundary.
APW-SS02			
APW-SS03			
APW-SB01	2 – 3	USEPA 8260B, USEPA 6010B	Assess environmental soil quality of drainage field located in the northeast corner of the on-site building.
GROUNDWATER			
APW-NMW-01	6.5 – 16.5	USEPA 8260B, USEPA 6010B	Assess the environmental groundwater quality within the shallow zone of the surficial aquifer at the Site.
APW-NMW-02	6.8 – 16.8		
APW-NMW-03	5.6 – 15.6		
APW-NMW-04	6.6 – 16.6		
APW-HSAMW-07	6.6 – 16.6		
APW-NMW-08	55 – 65		Assess the environmental groundwater quality within the deep zone of the shallow aquifer at the Site.

DRAWN BY: C. SPEHAR — DATE: 2/21/06	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S. ROME — DATE: 2/21/06	SAMPLE LOCATION MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME — DATE: 3/25/2006	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 3-1	REV: 0

P:\GIS\FORMERACCURATEPLATING\SITE_INVESTIGATION APR\SAMPLE LOCATION LAYOUT 3/21/06 CS

The remainder of this section details field methodologies and sample analyses used to complete this investigation. Activities performed to complete this investigation were conducted in general accordance to applicable portions of the USEPA Environmental Investigation Standard Operating Procedures, and Quality Assurance Manual (EISOPQAM), FDEP Standard Operating Procedures (SOPs) and the Site QAPP.

3.2 Soil Sampling

Three surface soil samples and one subsurface soil sample were collected at the Site. The three surface soil samples were collected from the small dry drainage easement located along the southern boundary of the Site (Figure 3-1). The subsurface soil sample was collected along the southern boundary of an on-site drainage field located near the northeast corner of the on-site building (Figure 3-1). Surface soil samples were collected using a stainless steel spoon to retrieve the sample which was placed and mixed in a stainless steel bowl to assure sample heterogeneity. Subsurface soil samples were collected from 2 to 3 ft bls using a 3.25 inch outside diameter (OD) stainless steel hand auger. Sampling equipment was decontaminated in general accordance to FDEP SOP FC 001/01 FC1000: Field Decontamination [30].

Soil sample collection for VOC analyses was conducted using the following procedure:

- Soil was retrieved for sample collection using one of the aforementioned methods.
- Once the soil was retrieved, a 5 gram sample aliquot was retrieved from the soil using a sterile polyethylene syringe and placed into a 40 milliliter (ml) glass vial. Each VOC sample kit (i.e., USEPA Method 5035 Field Kit) consists of three 40 ml glass vials: two containing 5 ml of deionized water and one containing 5 ml of methanol.
- After the sample aliquot has been placed in the respective 40 ml vial, each vial was capped, sealed with a chain of custody seal, and placed into a protective sample bag. In accordance with Section 173.4 of Chapter 49 of the Code of Federal Regulation (49CFR173.4), a seal was placed around each cap and vial rim for vials containing the methanol preservative prior to sample shipment.

Soil sample collection for metals analyses was conducted using the following procedures:

- Soil was retrieved for sample collection using one of the aforementioned methods.
- Soil sample aliquot [approximately 8 ounces (oz)] was retrieved from the soil collected and placed into an 8 oz glass vial with a sealed lid for shipment.

Soil samples were placed in laboratory-provided sample containers, sealed, labeled, packed on ice, and shipped under proper chain-of-custody protocol. Samples for VOC analyses were submitted to the USEPA Region IV Science and Ecosystem Support Division (SESD) Laboratory located in Athens,

Georgia. Samples submitted for metals analyses were submitted to Sentinel Laboratories located in Huntsville, Alabama. These laboratories are certified under the National Environmental Laboratory Accreditation Conference (NELAC).

Soil sampling procedures were conducted in accordance with USEPA Region IV EISOPQAM, Section 12: *Soil Sampling* and FDEP SOPs 001/01: FS3000: *Soil Sampling* for and FS1000: *General Sampling Procedures* [29,30]. Soil sample data sheets are included in Appendix A.

Soil sample results are discussed in Section 4.0 of this report.

3.3 SEDIMENT SAMPLING

Five sediment samples were collected from the approximate centerline of Allen's Creek located along the eastern Site boundary. During sampling, approximately 6 inches to 2 ft of standing water were observed. Sediment samples were collected using a stainless steel spoon to retrieve the sample, which was placed and mixed in a stainless steel bowl to assure sample heterogeneity.

Sediment samples were placed in laboratory-provided sample containers, sealed, labeled, packed on ice, and shipped under proper chain-of-custody protocol. Samples for VOC analyses were submitted to the USEPA Region IV SESD Laboratory, and samples submitted for Metals analyses were submitted to Sentinel Laboratories.

Sediment sampling procedures were conducted in general accordance with USEPA Region IV EISOPQAM, Section 11: *Sediment Sampling* and FDEP SOP 001/01 FS4000: Sediment Sampling (FDEP, 2002) [29,30]. Sediment sample data sheets are included in Appendix A.

Sediment sampling results are discussed in Section 4.0 of this report.

3.4 GROUNDWATER INVESTIGATION

3.4.1 Deep Monitoring Well Installation

TtNUS provided oversight for the installation of one deep monitoring well, NMW-08. Monitoring well NMW-08 was installed to the 65 ft bls [i.e., top of the Arcadia Formation (Scott, 1998)] to provide water quality information from the deep zone of the shallow aquifer. Lithology was logged during well installation from sample cores collected using a stainless steel 2 ft long by 2.125-inch diameter split spoon sampler.

When advancing the deep monitoring wells, the required 6-inch outer surface casing could not be set through a confining layer. As a result, Prosonic Drilling Inc, was contracted to complete the well installation using rotosonic drilling techniques. This drilling technique eliminated the need to use an outer surface casing and reduced the soil IDW for the Site.

The deep monitoring well was constructed using a 10-ft section of 2-inch-diameter, Schedule 40 polyvinyl chloride (PVC), threaded, 0.01-inch slotted PVC screen. The remaining well casing was constructed using threaded, 2-inch-diameter, Schedule 40 PVC well casing. The annulus between the well and the borehole wall was backfilled via tremie pipe with 20/30 clean silica sand to 2 ft above the top of the screen. A 2-ft layer of medium sized (3/4-inch), bentonite pellets was installed above the sand pack. The remainder of the annulus was backfilled with neat Type I Portland Cement grout via tremie pipe. After well construction was complete, the well was developed in accordance with USEPA Region IV EISOPQAM Section 7: *Groundwater Sampling* and FDEP SOP 001/01 FS2200 [29,30]. A monitoring well construction diagram is provided in Appendix B.

Management of IDW is discussed in Section 3.5 of this report.

3.4.2 Potentiometric Surface Measurements

Prior to collecting groundwater samples, potentiometric surface elevations were measured and recorded. Expansive plugs from each monitoring well were removed and each well was allowed a minimum of 15 minutes to equilibrate prior to obtaining the measurement. Depth to potentiometric surface was measured from the northern side of the top of well casing to the nearest 0.01 ft. Groundwater level measurements were collected in general accordance with USEPA Region IV EISOPQAM Section 15.5: *Groundwater Level Measurements* and FDEP SOP 001/01 FS2200 [29,30]. Sampling equipment was decontaminated between wells.

3.4.3 Groundwater Sampling

Groundwater samples were obtained from the five shallow monitoring wells (NMW-01 through NWM-04, and HSAMW-07) and one newly installed deep well (NMW-08). Groundwater sampling was conducted in general accordance with EISOPAQM Section 7: *Groundwater Sampling* and FDEP SOP 001/01 FS2200 [29,30]. During well purging, field measurements of pH, temperature, specific conductance (SC), and dissolved oxygen was recorded using an YSI 556 water quality multimeter for each purge volume. Turbidity was measured using a Lamotte 2020 turbidimeter. Stabilization protocol as defined in FS2200 was conducted for each parameter measurement.

Groundwater samples were collected and submitted to a fixed-based laboratory for analyses of VOCs using USEPA Method 8260B and metals via USEPA Method 6010B.

Teflon® and surgical-grade silicon tubing was used for sample collection. Groundwater samples analyzed for VOCs were collected using the "straw method" and discharged into the appropriate sample vial for analysis. VOC samples collected from the deep monitoring well (NMW-08) were collected by low flow purge from a submersible pump into a sterile, non-preserved, 1-liter amber jar. Sample volume was transferred from the jar into the appropriate 40-mL vial sample containers. Samples requiring preservation were collected in pre-preserved bottles provided by the laboratory. Pertinent sampling data were recorded in the FDEP Groundwater Sample Log Sheet included in Appendix A.

3.5 IDW MANAGEMENT

Soil cuttings from monitoring well installation activities, and development, purge and decontamination water were collected and containerized in Department of Transportation approved (Specification 17C) 55-gallon drums. The drums were sealed and labeled in an on-site pre-staging area pending analytical results. Specific IDW quantities and disposal information are discussed in Section 4.0 of this report.

3.6 SURVEYING

TtNUS collected horizontal datum for each monitoring well and direct push technology (DPT) sample location using a Tremble XRS Pro® differentiated global positioning system (GPS) device. Monitoring wells, soil and sediment sampling locations were recorded relative to the Florida State Plane Coordinate System, Florida State Plane North (North American Datum, 1983). Vertical datum was collected and referenced from a benchmark point (monitoring well HSAMW-07), surveyed by a previous consultant. Vertical datum was generated to 0.01 ft above mean sea level (msl) for the remaining five monitoring wells.

4.0 RESULTS

4.1 DATA SCREENING PROCESS

Multiple soil, sediment, and groundwater samples were collected for laboratory analysis during the site investigation activities. As a result of uncertainties of sample custody that occurred at the USEPA Regional Laboratory from the first event, only analytical results from the second event were evaluated for this report. The purpose of the data evaluation is to identify chemical constituents present at concentrations exceeding applicable screening criteria. Analytical results from soil samples were compared to the USEPA Region IX Preliminary Remediation Goals (PRGs) [27], FDEP SCTLs and groundwater protection (i.e., leaching) [7]. Sediment data were compared to the FDEP SQAGs and FDEP Ecological Toxic Effects Threshold (ETET) for Sediments [4]. Groundwater data were compared to FDEP GCTLs, which incorporate USEPA primary and secondary drinking water standards for many constituents [5] (i.e., Federal MCLs). The analytical data evaluation was performed in accordance with the procedures detailed in the combined PA/SI Work Plan / QAPP [41].

4.2 SOIL

4.2.1 Surface Soil

Three surface soil samples (APW-SS01, APWSS02, and APW- SS03) were collected from land surface to 1 ft bls at the Site. Analytical results indicate concentrations of arsenic, chromium, nickel and iron detected at levels greater than the respective USEPA Region IX PRGs and FDEP SCTLs.

Arsenic concentrations from soil sample APW-SSO1 exceeded the USEPA Region IX Residential Direct Exposure and Industrial PRGs of 0.39 mg/kg and 1.6 mg/kg, respectively, and the FDEP SCTL for Residential Direct Exposure and Industrial SCTLs of 2.1 mg/kg and 12 mg/kg, respectively. Sample results from APW-SS02 also indicated arsenic concentrations at levels exceeding the USEPA Region IX Residential Direct Exposure and Industrial PRGs.

Chromium concentrations from soil samples APW-SSO1 and APW-SS02 exceeded FDEP SCTL for leachability of 38 mg/kg and the Region IX Residential Direct Exposure and Industrial PRGs for total chromium of 30 mg/kg and 64 mg/kg, respectively.

Iron concentrations from soil sample APW-SSO1 exceed the FDEP SCTL for Residential Direct Exposure of 53,000 mg/kg. Nickel concentrations from soil sample APW-SSO1 also exceeded the FDEP SCTL for leachability (130 mg/kg).

Analytical results from the remaining soil samples did not indicate any USEPA Region IX PRGs or FDEP SCTL exceedances. A summary of soil analytical detections is provided on Table 4-1 and soil exceedances are depicted on Figure 4-1. A copy of the soil analytical report is included in Appendix C.

4.2.2 Subsurface Soil

One subsurface soil sample (APW-SB01) was collected from 2 to 3 ft bls near the southeast corner of the on-site septic drain field. Sample results did not indicate any USEPA Region IX PRGs or FDEP SCTL exceedances from this soil sample. A summary of soil analytical results is provided on Table 4-1 and soil exceedances are depicted on Figure 4-1. A copy of the soil analytical report is included in Appendix C.

4.3 SEDIMENT

Five sediment samples (APW-SED01, APW-SED02, APW-SED03, APW-SED04, and APW-SED05) were collected from the approximate centerline of Allen's Creek located to the adjacent east Site boundary. Analytical results from one sediment sample, APW-SED01, indicated concentrations of chromium exceeding the Toxic Effects Threshold (TEC) and Coastal threshold of 52.3 mg/kg as listed in the Florida SQAGs. This sample also exceeded the Florida ETET of 52.3 mg/kg. In addition, sample results from APW-SED01 indicated copper concentrations exceeding the TEC and Coastal threshold of 18.7 mg/kg and the ETET of 18.7 mg/kg. No other exceedances were reported from the remaining sediment sample results. A summary of sediment analytical detections is provided on Table 4-2 and sediment sample locations are depicted for reference purposes on Figure 4-2. Sediment analytical results were included in the soil analytical report provided in Appendix C.

4.4 POTENTIOMETRIC SURFACE RESULTS

Potentiometric surface measurements were collected from each of the five shallow monitoring wells. Top of casing elevation was also surveyed to the nearest 0.01 ft msl. Based on these measurements, groundwater flow direction at the Site is to the southeast towards Allen's Creek. A summary of these groundwater elevations is provided on Table 4-3 and depicted on Figure 4-3.

TABLE 4-1
SUMMARY OF SOIL ANALYTICAL DETECTIONS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

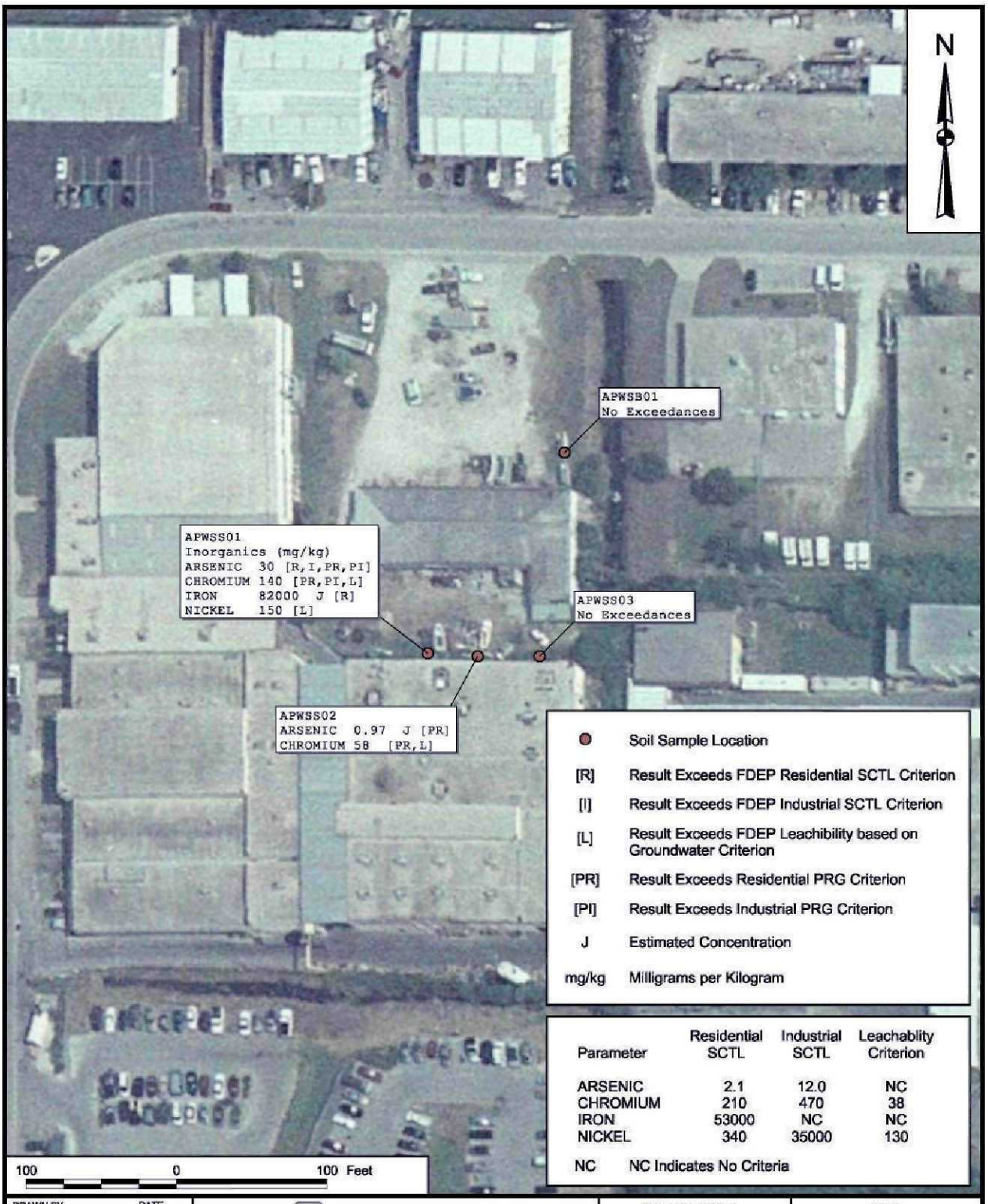
LOCATION	FDEP Soil Cleanup Target Level per Chapter 62-777, F.A.C.			USEPA PRG [1]		APWSS01	APWSS02	APWSS03	APWSB01
SAMPLE ID SAMPLE DATE	RESIDENTIAL DIRECT EXPOSURE	INDUSTRIAL	LEACHABILITY	RESIDENTIAL DIRECT EXPOSURE	INDUSTRIAL	APWSS01 12/7/2005	APWSS02 12/7/2005	APWSS03 12/7/2005	APWSB01 12/7/2005
Volatile Organics (ug/kg)									
4-ISOPROPYLTOLUENE	960000	5600000	NC	NC	NC	0.27 J	0.94 U	0.31 J	0.97 U
METHYLENE CHLORIDE	17000	26000	20	9100	21000	1.9	0.86 J	0.85 U	3.8
Inorganics (mg/kg)									
ALUMINUM	80000	NC	NC	76000	100000	1300	1400	3100	1300
ANTIMONY	27	370	5.4	31	410	4.2 J	1.7 R	0.68 R	0.89 R
ARSENIC	2.1	12	NC	0.39	1.6	30 [R,I,PR,PI]	0.97 J [PR]	1.4 U	0.79 R
BARIUM	120	130000	1600	5400	67000	27 J	14 J	7.9 J	8.2 J
BERYLLIUM	120	1400	63	150	1900	0.06 J	0.06 J	0.11 J	0.11 J
CADMIUM	82	1700	7.5	37 [2]	450 [2]	1.5	0.43 J	0.47 J	0.18 J
CALCIUM	NC	NC	NC	NC	NC	26000 J	20000 J	2200 J	5400 J
CHROMIUM	210	470	38	30 [3]	64 [3]	140 [L, PR,PI]	58 [L, PR]	8.5	9.2
COBALT	1700	42000	NC	900	1900	5.8 J	0.71 J	0.46 R	0.35 J
COPPER	150	89000	NC	3100	41000	110	47	30	11
IRON	53000	NC	NC	23000	100000	82,000 J [R]	1000 J	830 J	880 J
LEAD	400	1400	NC	400	800	190	35	32	35
MAGNESIUM	NC	NC	NC	NC	NC	460 J	170 J	140 J	170 J
MANGANESE	3500	43000	NC	1800	19000	320	27	5.9	8.6
NICKEL	340	35000	130	1600	20000	150 [L]	13	3.7 J	7.7
POTASSIUM	NC	NC	NC	NC	NC	120 J	73 J	78 J	74 J
SELENIUM	440	11000	5.2	390	5100	1.8 J	4.5 U	4.8 U	4.9 U
SILVER	410	8200	17	390	5100	3.9	0.1 R	0.89 R	0.25 J
VANADIUM	67	10000	980	78	1000	5.6 J	2.7 J	3.9 J	2.4 J
ZINC	26000	630000	NC	23000	100000	490 J	200 J	180 J	28 J

Analytes not shown reported concentrations below SCTLs and Method Detection Limits (MDLs)
VOC Concentrations are shown in micrograms per kilogram (ug/kg).
Inorganic Concentrations shown in milligrams per kilogram (mg/kg).
Shaded cells indicate that the chemical concentration is greater than on or more of the applicable criteria.

1 - USEPA Region IX Preliminary Remediation Goals (PRGs), October 2004, Updated December 28, 2004.
2 - The Region IX PRGs for cadmium are based on the RfDo for water 5E-04. The following PRGs are twice those for water and based on an RfDo for food 1E-03: PRGind soil = 1600mg/kg, PRGres soil = 74 mg/kg
3 - Note that there are three chromium entries presented on the Region IX PRG table: Total Chromium ,Chromium III (Trivalent Chromium, and Chromium VI (Hexavalent Chromium). Total Chromium value (more strigent) shown.

F.A.C. - Florida Adminsitrative Code
FDEP - Florida Department of Environmental Protection.
J - Estimated Concentration
NC - No Criteria
PRG - Preliminary Remediation Goal
SCTL - Soil Cleanup Target Level.
U - Analyte concentration was below laboratory MDL

Flags:
[R] - Exceeds Residential SCTL
[I] - Exceeds Industiral SCTL
[L] - Exceeds SCTL for Leachability
[PR] - Exceeds Residential PRG
[PI] - Exceeds Industrial PRG
R - Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.



DRAWN BY: C. SPEHAR — DATE: 3/20/06	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S. ROME — DATE: 6/22/06	SOIL EXCEEDANCES MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S.ROME — DATE: 6/23/06	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 4 - 1	REV: 0

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TABLE 4-2
SUMMARY OF SEDIMENT ANALYTICAL DETECTIONS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

LOCATION	Screening Criteria				APWSED01	APWSED02	APWSED03	APWSED04	APWSED05
SAMPLE ID	SQAG			ETET	APWSED01	APWSED02	APWSED03	APWSED04	APWSED05
SAMPLE DATE	TEC	PEC	Coastal		12/7/2005	12/7/2005	12/7/2005	12/7/2005	12/7/2005
Volatile Organics (ug/kg)									
4-ISOPROPYLTOLUENE	NC	NC	NC	NC	0.29 J	0.85 U	0.68 U	0.79 U	0.71 U
Inorganics (mg/kg)									
ALUMINUM	NC	NC	NC	NC	1200	1200	1000	340	580
ANTIMONY	NC	NC	NC	2	0.79 R	0.76 R	0.82 R	7.6 U	0.34 J
ARSENIC	7.24	41.6	7.24	7.24	0.62 R	0.58 J	0.83 R	1.3 U	1.3 U
BARIUM	NC	NC	NC	NC	5.7 J	6 J	8 J	1.7 J	2.4 J
BERYLLIUM	NC	NC	NC	NC	0.06 J	0.07 J	0.06 J	0.01 J	0.03 J
CADMIUM	0.676	4.21	0.676	0.676	0.2 J	0.26 J	0.21 J	0.07 J	0.19 J
CALCIUM	NC	NC	NC	NC	18000 J	6200 J	18000 J	3800 J	1200 J
CHROMIUM	52.3	160	52.3	52.3	53	13	6.2	3.9	9.1
COBALT	NC	NC	NC	NC	0.37 J	0.44 J	0.78 J	6.3 U	0.21 R
COPPER	18.7	108	18.7	18.7	20	18	10	4.6	13
IRON	NC	NC	NC	NC	930 J	1000 J	1400 J	210 J	1300 J
LEAD	30.2	112	30.2	30.2	25	20	11	3	11
MAGNESIUM	NC	NC	NC	NC	250 J	210 J	290 J	56 J	71 J
MANGANESE	NC	NC	NC	NC	7.1	7.6	7	1.6 UJ	2.7
NICKEL	15.9	42.8	15.9	15.9	7.7	3.7 J	2.2 J	0.84 J	2.5 J
POTASSIUM	NC	NC	NC	NC	98 J	90 J	100 J	57 J	57 J
SILVER	0.733	1.77	0.733	0.733	0.33 R	0.34 J	0.2 R	0.08 J	0.25 R
VANADIUM	NC	NC	NC	NC	3.1 J	3.6 J	4.4 J	0.66 J	3.3 J
ZINC	124	271	124	124	57 J	57 J	55 J	20 J	110 J

Analytes not shown reported concentrations below screening criteria and Method Detection Limits (MDLs)
VOC Concentrations are shown in micrograms per kilogram (ug/kg).
Inorganic Concentrations shown in milligrams per kilogram (mg/kg).
Shaded cells indicate that the chemical concentration is greater than one or more of the applicable criteria.

SQAG - Florida Sediment Quality Assessment Guidelines, 1994
ETET - Florida Department of Environmental Protection - Ecological Toxic Effects Threshold for Sediments.
PEC - Probable Effects Concentrations
TEC - Threshold Effects Concentrations
J - Estimated Concentration
NC - No Criteria available
U - Analyte concentration was below laboratory MDL
R - Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable
UJ - The reporting limit for this analyte is considered to be an estimate.

DRAWN BY: A. JANOCHA DATE: 6/22/06	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S. ROME DATE: 6/22/06	SEDIMENT EXCEEDANCES MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME DATE: 6/23/06	
COST/SCHEDULE-AREA		APPROVED BY: — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 4 - 2	REV: 0

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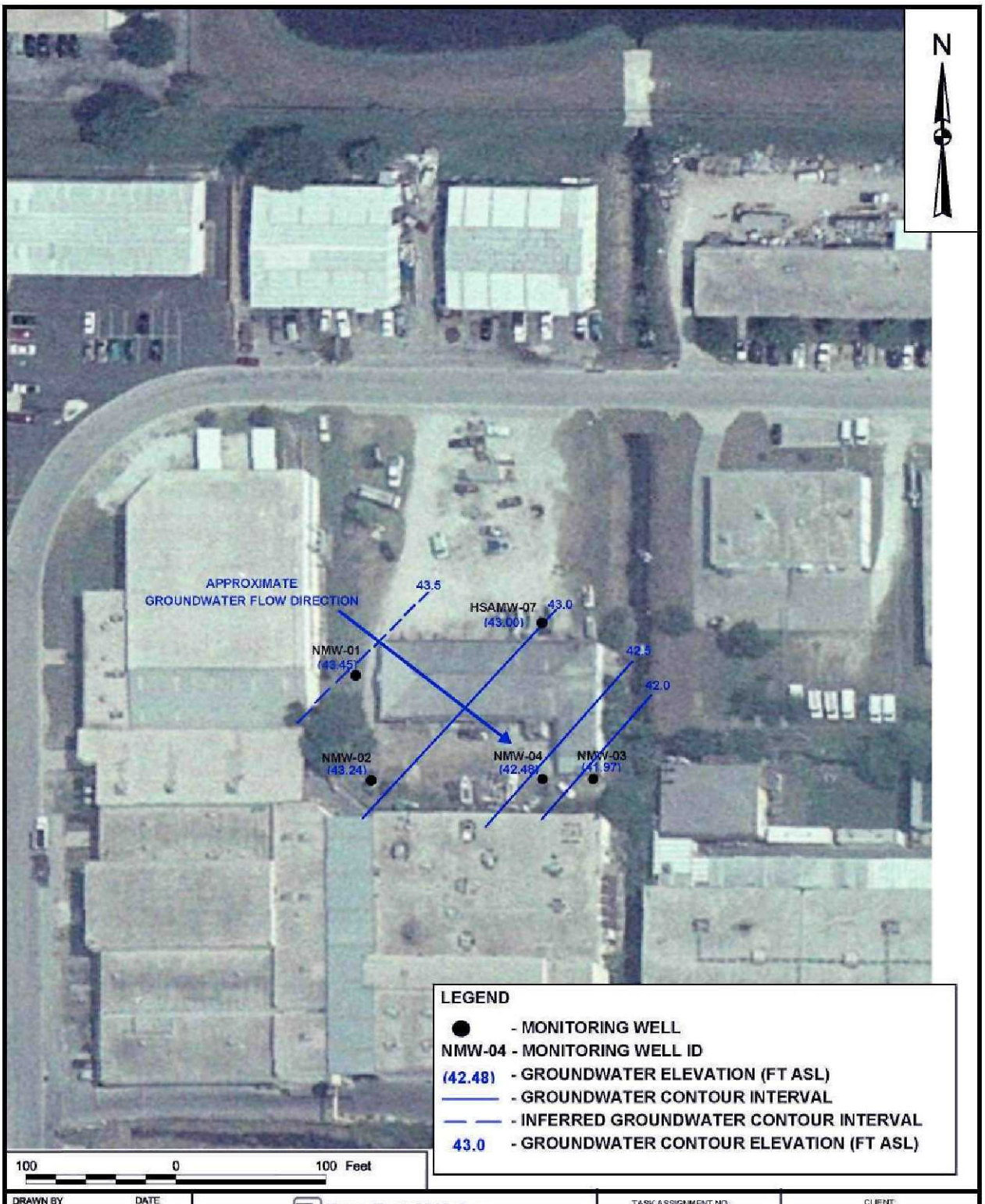
TABLE 4-3
SUMMARY OF POTENTIOMETRIC SURFACE ELEVATIONS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

Location ID	Top of Casing Elevation (0.01 ft asl)	Depth to Groundwater (ft bls)	Groundwater Elevation (ft msl)
HSAMW-07	47.59	4.59	43.00
NMW-01	46.95	3.5	43.45
NMW02	47.12	3.88	43.24
NWM-03	47.27	5.3	41.97
NWM 04	46.08	3.6	42.48

msl = mean sea level
HSAMW-07 used as benchmark reference point



DRAWN BY: C. SPEHAR — DATE: 3/20/2006	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S.ROME — DATE: 3/20/2006	POTENTIOMETRIC SURFACE MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME — DATE: 3/25/2006	
COST/SCHEDULE-AREA		APPROVED BY: — — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 4-3	REV: 0

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4.5 GROUNDWATER

Groundwater samples were collected from each of the five shallow monitoring wells (NMW-01 to NMW-04, and HSAMW-07) and one deep monitoring well (NMW-08). During sampling, geochemical field parameters were collected during the sampling event using a YSI 556 Water Quality Multimeter. A summary of geochemical field parameters is presented on Table 4-4.

A summary of groundwater analytical results is provided below.

- Groundwater analytical results indicated 23 VOCs were detected from the five shallow groundwater samples. Five VOCs including chlorobenzene, cis-1,2-DCE, PCE, TCE, and vinyl chloride, were detected at concentrations exceeding FDEP GCTLs and Federal MCLs. These exceedances were detected in groundwater samples collected from monitoring wells NMW-03 and NMW-04; however, as noted below, the duplicate sample from NMW-03 (APW-DUP-01) did not show exceedances of any GCTLs.
- Groundwater analytical results also indicated 16 metal compounds were detected from the five shallow groundwater samples. Four of these compounds, aluminum, arsenic, iron, and manganese, were detected at levels exceeding either Federal MCLs or FDEP GCTLs; however, two of these wells exhibited elevated turbidity.
- Manganese concentrations in both samples were estimated (J) values only; however, the background well showed elevated concentrations of manganese, suggesting that the on-site concentration of manganese is below or consistent with the background groundwater quality conditions.
- Groundwater analytical results from monitoring well NMW-08 indicated arsenic at concentrations exceeding the FDEP GCTL and Federal MCLs.
- Iron was detected in all groundwater samples at concentrations ranging from 1,500 µg/L to 6,700 µg/L, exceeding the Federal MCLs and FDEP GCTL of 300 µg/L; however, the background well reported the highest concentration (of iron) of 6,700 µg/L, suggesting that on-site concentrations are below or consistent with the background conditions.
- Analytical results from duplicate groundwater sample APW-DUP01 collected from monitoring well NMW-03 did not indicate concentrations greater than the Federal MCLs and FDEP GCTLs.

TABLE 4-4
SUMMARY OF GEOCHEMICAL FIELD PARAMETERS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

Parameter	Method	Units	Well ID: APW-					
			NMW-01	NMW-02	NMW-03	NMW-04	HSAMW-07	NMW-08
			4/12/2005	7/13/2005	10/20/2005	1/1/2006	4/12/2005	7/13/2005
Field Parameters								
Dissolved Oxygen	YSI	mg/L	0.25	0.15	0.25	0.07	0.16	0.05
pH	YSI	SU	6.15	5.74	5.31	6.12	6.26	7.14
Specific Conductivity	YSI	uS/cm	0.691	0.441	0.378	0.477	0.499	0.727
Temperature	YSI	°C	24.45	25.05	24.51	23.47	24.47	24.56
Turbidity	LaMotte 2020	NTU	2.7	3.1	898	4.64	12	8.68

Notes:

mg/L = milligrams per liter
SU = standard unit
°C = degress Celsius
NM = not measured
NTU = nephelometric turbidity unit
mS/cm = millisiemens per centimeter

The remaining groundwater samples did not exceed the FDEP GCTLs. A summary of groundwater analytical detections is summarized on Table 4-5, and groundwater exceedances are depicted on Figure 4-4. A copy of the groundwater analytical report is included in Appendix C.

4.6 QUALITY CONTROL SAMPLES

Four QC samples were collected during this investigation. One duplicate groundwater sample, APW-DUP01 (collected from monitoring well NMW-03) and one equipment blank sample (collected from the stainless steel auger bucket used to collect APW-SB01) were submitted for laboratory analyses of VOCs and metals. In addition, one solid trip blank and one aqueous trip blank were submitted for laboratory analyses. One QC sample, APW-DUP01, exceeded FDEP GCTLs for iron and manganese. Sample results from APW-DUP01 and APW-EB01 also reported laboratory method detection limits for aluminum, antimony, beryllium, and thallium at concentrations greater than the respective FDEP GCTLs. A summary of QC analytical results is provided in Table 4-6.

4.7 IDW MANAGEMENT

Approximately 50 gallons of soil IDW (i.e., 1, 55-gallon drum) and 495 gallons of aqueous IDW (i.e., 10, 55-gallon drums) were transported and disposed of by Waste Management Inc. on January 5, 2006. A copy of the waste manifest is included in Appendix D.

TABLE 4-5
SUMMARY OF GROUNDWATER ANALYTICAL DETECTIONS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

LOCATION SAMPLE ID SAMPLE DATE	USEPA MCL (ug/l)	FDEP GCTLs (ug/L)	HSAMW07 HSAMW07 12/7/2005	NMW01 NMW-1 12/7/2005	NMW02 NMW-2 12/7/2005	NMW03 NMW-3 12/8/2005	NMW03 NMW-3-D 12/8/2005	NMW04 NMW-4 12/7/2005	NMW08 NMW-8 12/8/2005
Volatile Organics (ug/L)									
1,1-DICHLOROETHANE	NC	70	1.0 U	1.0 U	5.7	2.7 J	1.0 U	0.96 J	1.0 U
1,1-DICHLOROETHENE	7	7 (1)	1.0 U	1.0 U	0.50 J	3.4 J	1.0 U	1.2 J	1.0 U
1,2,4-TRIMETHYLBENZENE	NC	10	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.40 J	1.0 U
1,2-DICHLOROBENZENE	600	600 (1)	1.0 U	1.0 U	1.0 U	80	1.0 U	77	0.22 J
1,3,5-TRIMETHYLBENZENE	NC	10	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.40 J	1.0 U
1,3-DICHLOROBENZENE	NC	210	1.0 U	1.0 U	1.0 U	3.0 J	1.0 U	5.2	1.0 U
1,4-DICHLOROBENZENE	75	75 (1)	1.0 U	1.0 U	1.0 U	16	1.0 U	22	1.0 U
2-BUTANONE	NC	4200	5.0 U	5.0 U	5.0 U	25 U	0.96 J	10 U	5.0 U
4-ISOPROPYLTOLUENE	NC	NC	1.0 U	0.27 J	1.0 U	5.0 U	0.30 J	2.0 U	1.0 U
BENZENE	5	1	1.0 U	0.16 J	1.0 U	0.40 J	0.18 J	0.18 J	1.0 U
CARBON DISULFIDE	NC	700	1.0 UJ	1.0 UJ	1.0 UJ	1.8 J	1.0 UJ	2.1 J	1.0 UJ
CHLOROBENZENE	100	100 (1)	1.0 U	1.0 U	1.0 U	65	1.0 U	190	0.19 J
CIS-1,2-DICHLOROETHENE	70	70 (1)	1.0 U	0.19 J	1.0 U	2300	0.14 J	1300	0.76 J
ETHYLBENZENE	700	30	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.44 J	1.0 U
ISOPROPYLBENZENE	NC	0.8	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	0.28 J	1.0 U
METHYL TERT-BUTYL ETHER	NC	20	0.15 J	0.23 J	1.0 U	2.7 J	0.24 J	13	0.27 J
METHYLENE CHLORIDE	5	5 (1)	1.0 U	1.0 U	1.0 U	5.0 U	1.0 U	2.0 U	0.12 J
O-XYLENE	10000	NC	1.0 U	1.0 U	1.0 U	0.90 J	1.0 U	0.58 J	1.0 U
TETRACHLOROETHENE	5	3	1.0 U	1.0 U	1.0 U	200	1.0 U	100	1.0 U
TOLUENE	1000	40	1.0 U	0.12 J	0.052 J	2.6 J	1.0 U	1.9 J	0.084 J
TRANS-1,2-DICHLOROETHENE	100	100 (1)	1.0 U	1.0 U	1.0 U	73	1.0 U	68	1.0 U
TRICHLOROETHENE	5	3	1.0 U	1.0 U	1.0 U	290 J	1.0 U	86 J	1.0 U
VINYL CHLORIDE	2	1	1.0 U	1.0 U	1.0 U	2.3 J	1.0 U	3.6	1.0 U
Inorganics (ug/L)									
ALUMINUM	NC	200	930	370 U	620 U	14000	430 U	660 U	340 U
ARSENIC	10	10 (1)	5.6 J	3.7 R	3.4 J	4.1 J	10 U	10 U	13
BARIUM	2000	2000 (1)	32 J	20 J	22 J	53 J	20 J	11 J	19 J
CALCIUM	NC	NC	52000	69000	27000	6000	70000	37000	84000
CHROMIUM	100	100 (1)	2.5 J	3.2 J	4.5 J	27	2.7 J	7.1 J	9.6 J
COBALT	NC	140	50 U	0.88 R	50 U	1.9 J	50 U	1.9 R	50 U
IRON	NC	300	3800	6700	2500	3500	6300	1500	2400
LEAD	15	15 (1)	10 U	10 U	10 U	13	10 U	2.1 UJ	10 U
MAGNESIUM	NC	NC	3300 J	9700	9600	3600 J	9600	4000 J	11000
MANGANESE	NC	50	17 J	68 J	9.8 UJ	3.8 UJ	71 J	8.4 UJ	36 J
NICKEL	NC	100	40 U	1.6 R	40 U	5.7 J	1.3 R	2.5 J	5.6 J
POTASSIUM	NC	NC	2900 J	2100 J	3500 J	1100 J	2100 J	1600 J	910 J
SELENIUM	50	50 (1)	35 U	35 U	35 U	3.8 R	35 U	35 U	35 U
SILVER	NC	100	10 U	1.3 R	10 U	10 U	10 U	10 U	10 U
SODIUM	NC	160000	19000	34000	33000	48000	34000	44000	23000
VANADIUM	NC	49	44 J	8.6 J	16 J	35 J	7.7 J	11 J	50 U

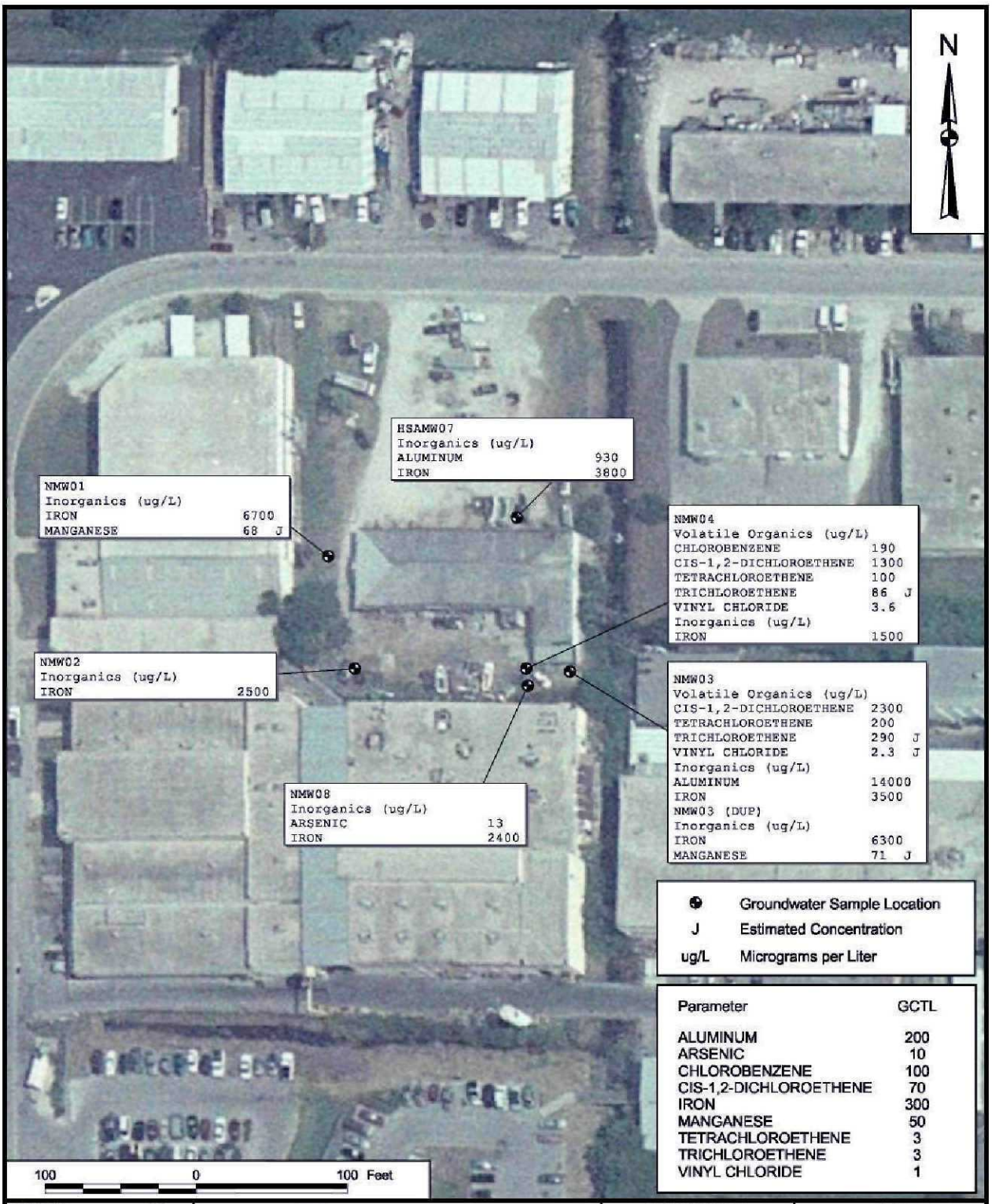
Concentrations shown in micrograms per liter (ug/L).
Shaded cells indicate that the chemical concentration is greater than the associated criterion
(1) = The GCTL is same as the Federal Maximum Contaminant Level (MCL).

TABLE 4-5
SUMMARY OF GROUNDWATER ANALYTICAL DETECTIONS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

F.A.C. - Florida Administrative Code
FDEP - Florida Department of Environmental Protection
GCTL - Groundwater Cleanup Target Level per Chapter 62-777, F.A.C.
MCL - (Federal) Maximum Contaminant Level
USEPA - United States Environmental Protection Agency
NC - No Criteria
J - Estimated Concentration
R - Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.
T - Groundwater sample turbidity of the specific monitoring wells are as follows:

HSAMW07 - 12 NTUs,
NMW-3 - 898 NTUs
NMW-8 - 868 NTUs

U - Analyte concentration was below laboratory method detection limit.
UJ - Analyte not detected at or above reporting limit. Reporting limit is an estimate.



DRAWN BY: C. SPEHAR — DATE: 3/20/06	Tetra Tech NUS, Inc.	TASK ASSIGNMENT NO.: 1	CLIENT: FDEP
CHECKED BY: S. ROME — DATE: 6/22/06	GROUNDWATER EXCEEDANCE MAP PRELIMINARY ASSESSMENT / SITE INVESTIGATION FORMER ACCURATE PLATING & WEAPONRY SITE 1937 CALUMET STREET CLEARWATER, FLORIDA	APPROVED BY: S. ROME — DATE: 6/23/06	
COST/SCHEDULE-AREA		APPROVED BY: — DATE: —	
SCALE: AS NOTED		DRAWING NO.: FIGURE 4 - 4	REV: 0

P:\GIS\FORMERACCURATEPLATING\SITE_INVESTIGATION.APR GROUNDWATER EXCEEDANCE TAG MAP 6/22/06 AJ

TABLE 4-6
SUMMARY OF QUALITY CONTROL ANALYTICAL RESULTS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

MEDIA	FDEP SCTL			USEPA PRG		FDEP GCTLs	SOIL	GROUNDWATER		
UNITS	DIRECT CONTACT	DIRECT CONTACT	MIGRATION TO	DIRECT CONTACT	DIRECT CONTACT	per Chapter 62-777, F.A.C.	ug/kg	ug/L	ug/L	ug/L
LOCATION	RESIDENTIAL	INDUSTRIAL	GROUNDWATER	RESIDENTIAL	INDUSTRIAL	(ug/L)	--	--	MW03	--
SAMPLE ID							APWTB01	APWTB02	APW-DUP01	APWEB01
SAMPLE DATE							12/6/2005	12/5/2005	12/7/2005	12/7/2005
Volatile Organics										
1,1,1,2-TETRACHLOROETHANE	2900	4300	10	3200	7300000	1.3	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-TRICHLOROETHANE	730000	3900000	1900	1200000	1200000	200 (1)	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2,2-TETRACHLOROETHANE	700	1200	1	410	930	0.2	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROETHANE	1400	2000	30	730	1600	5 (1)	1.0 U	1.0 U	1.0 U	1.0 U
1,1,2-TRICHLOROTRIFLUOROETHANE	18000000	98000000	11000000	5600000	5600000	210000	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHANE	390000	2100000	400	510000	1700000	70	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROETHENE	95000	510000	60	120000	410000	7 (1)	1.0 U	1.0 U	1.0 U	1.0 U
1,1-DICHLOROPROPENE	NC	NC	NC	NC	NC	NC	1.0 U	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROBENZENE	850000	8200000	4600	NC	NC	70	2.0 U	1.0 U	1.0 U	1.0 U
1,2,3-TRICHLOROPROPANE	60	100	0.1	34	76	0.02	2.0 U	1.0 U	1.0 U	1.0 U
1,2,4-TRICHLOROBENZENE	860000	8500000	5300	62000	220000	70 (1)	2.0 U	1.0 U	1.0 U	1.0 U
1,2,4-TRIMETHYLBENZENE	18000	95000	300	52000	170000	10	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DIBROMO-3-CHLOROPROPANE	700	3800	1	460	2000	0.2 (1)	5.0 U	2.0 U	2.0 U	2.0 U
1,2-DIBROMOETHANE	100	200	0.1	32	73	0.02	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROBENZENE	880000	5000000	17000	600000	600000	600 (1)	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROETHANE	500	700	10	280	600	3	1.0 U	1.0 U	1.0 U	1.0 U
1,2-DICHLOROPROPANE	600	900	30	340	740	5 (1)	1.0 U	1.0 U	1.0 U	1.0 U
1,3,5-TRIMETHYLBENZENE	15000	80000	300	21000	70000	10	1.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROBENZENE	380000	2200000	7000	530000	800000	210	2.0 U	1.0 U	1.0 U	1.0 U
1,3-DICHLOROPROPANE	NC	NC	NC	100000	360000	NC	1.0 U	1.0 U	1.0 U	1.0 U
1,4-DICHLOROBENZENE	6400	9900	2200	3400	7900	75 (1)	2.0 U	1.0 U	1.0 U	1.0 U
2,2-DICHLOROPROPANE	NC	NC	NC	NC	NC	NC	1.0 U	1.0 U	1.0 U	1.0 U
2-BUTANONE	18000000	110000000	17000	22000000	110000000	4200	1.1 J	1.1 J	0.96 J	7.3 J
2-CHLOROTOLUENE	200000	1200000	2800	160000	560000	140	1.0 U	1.0 U	1.0 U	1.0 U
2-HEXANONE	24000	130000	1400	NC	NC	280	1.0 U	2.0 U	2.0 U	0.36 J
4-CHLOROTOLUENE	170000	990000	2500	NC	NC	140	2.0 U	1.0 U	1.0 U	1.0 U
4-ISOPROPYLTOLUENE	960000	5600000	NC	NC	NC	NC	1.0 U	1.0 U	0.30 J	1.0 U
4-METHYL-2-PENTANONE	4300000	44000000	2800	5300000	47000000	560	1.0 U	1.0 U	1.0 U	1.0 U
ACETONE	11000000	68000000	25000	14000000	54000000	6300	10 U	2.0 U	2.0 U	25 J
BENZENE	1200	1700	7	640	1400	1	1.0 U	1.0 U	0.18 J	1.0 U
BROMOBENZENE	NC	NC	NC	26000	92000	NC	1.0 U	1.0 U	1.0 U	1.0 U
BROMOCHLOROMETHANE	95000	530000	600	NC	NC	91	1.0 U	1.0 U	1.0 U	1.0 U
BROMODICHLOROMETHANE	1500	2200	4	620	1800	0.6	1.0 U	1.0 U	1.0 U	1.0 U
BROMOFORM	46000	93000	30	62000	220000	4.4	5.0 U	1.0 U	1.0 U	1.0 U
BROMOMETHANE	3100	16000	50	3900	13000	9.8	1.0 U	1.0 UJ	1.0 UJ	1.0 UJ
CARBON DISULFIDE	270000	1500000	5600	360000	720000	700	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
CARBON TETRACHLORIDE	500	700	40	250	550	3	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROBENZENE	120000	650000	1300	150000	530000	100 (1)	1.0 U	1.0 U	1.0 U	1.0 U
CHLORODIBROMOMETHANE	1500	2300	3	1100	2600	0.4	1.0 U	1.0 U	1.0 U	1.0 U
CHLOROETHANE	3900	5400	60	3000	6500	12	1.0 U	1.0 U	1.0 U	1.0 U

TABLE 4-6
SUMMARY OF QUALITY CONTROL ANALYTICAL RESULTS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

MEDIA	FDEP SCTL			USEPA PRG		FDEP GCTLs	SOIL	GROUNDWATER		
UNITS	DIRECT CONTACT RESIDENTIAL	DIRECT CONTACT INDUSTRIAL	MIGRATION TO GROUNDWATER	DIRECT CONTACT RESIDENTIAL	DIRECT CONTACT INDUSTRIAL	per Chapter 62-777, F.A.C. (ug/L)	ug/kg	ug/L	ug/L	ug/L
LOCATION							--	--	NMW03	--
SAMPLE ID							APWTB01	APWTB02	APW-DUP01	APWEB01
SAMPLE DATE							12/6/2005	12/5/2005	12/7/2005	12/7/2005
CHLOROFORM	400	600	400	220	470	70	1.0 U	1.0 U	1.0 U	1.6
CHLOROMETHANE	4000	5700	10	47000	160000	2.7	1.0 UJ	1.0 UJ	1.0 UJ	1.0 UJ
CIS-1,2-DICHLOROETHENE	33000	180000	400	43000	150000	70 (1)	1.0 U	1.0 U	0.14 J	1.0 U
CIS-1,3-DICHLOROPROPENE	NC	NC	NC	780	1800	NC	1.0 U	1.0 U	1.0 U	1.0 U
CYCLOHEXANE	NC	NC	NC	140000	140000	NC	1.0 U	1.0 U	1.0 U	1.0 U
DIBROMOMETHANE	96000	550000	300	67000	230000	70	1.0 U	1.0 U	1.0 U	1.0 U
DICHLORODIFLUOROMETHANE	77000	410000	44000	94000	310000	1400	1.0 UJ	1.0 U	1.0 U	1.0 U
ETHYLBENZENE	1500000	9200000	600	400000	400000	30	1.0 U	1.0 U	1.0 U	1.0 U
HEXACHLOROBUTADIENE	6200	13000	1000	6200	22000	0.4	1.0 U	1.0 U	1.0 U	1.0 U
ISOPROPYLBENZENE	220000	1200000	200	570000	2000000	0.8	1.0 U	1.0 U	1.0 U	1.0 U
M+P-XYLENES	NC	NC	NC	NC	NC	NC	2.0 U	2.0 U	2.0 U	2.0 U
METHYL ACETATE	6800000	36000000	16000	22000000	92000000	3000	1.0 U	1.0 U	1.0 U	1.0 U
METHYL CYCLOHEXANE	NC	NC	NC	2600000	8700000	NC	1.0 U	1.0 U	1.0 U	1.0 U
METHYL TERT-BUTYL ETHER	4400000	24000000	90	32000	70000	20	1.0 U	1.0 U	0.24 J	1.0 U
METHYLENE CHLORIDE	17000	26000	20	9100	21000	5 (1)	1.0 U	1.2	1.0 U	1.1
N-BUTYLBENZENE	NC	NC	NC	240000	240000	NC	2.0 U	1.0 U	1.0 U	1.0 U
N-PROPYLBENZENE	NC	NC	NC	240000	240000	NC	1.0 U	1.0 U	1.0 U	1.0 U
O-XYLENE	NC	NC	NC	270000	420000	NC	1.0 U	1.0 U	1.0 U	1.0 U
SEC-BUTYLBENZENE	NC	NC	NC	220000	220000	280	1.0 U	1.0 U	1.0 U	1.0 U
STYRENE	3600000	23000000	3600	1700000	1700000	100 (1)	1.0 U	1.0 U	1.0 U	1.0 U
TERT-BUTYLBENZENE	NC	NC	NC	390000	390000	NC	1.0 U	1.0 U	1.0 U	1.0 U
TETRACHLOROETHENE	8800	18000	30	480	1300	3	1.0 U	1.0 U	1.0 U	1.0 U
TOLUENE	7500000	60000000	500	520000	520000	40	1.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,2-DICHLOROETHENE	53000	290000	700	69000	230000	100 (1)	5.0 U	1.0 U	1.0 U	1.0 U
TRANS-1,3-DICHLOROPROPENE	NC	NC	NC	780	1800	NC	1.0 U	1.0 U	1.0 U	1.0 U
TRICHLOROETHENE	6400	9300	30	53	110	3	1.0 U	1.0 U	1.0 U	0.11 J
TRICHLOROFLUOROMETHANE	270000	1500000	33000	390000	2000000	2100	1.0 U	1.0 U	1.0 U	1.0 U
VINYL CHLORIDE	200	800	7	79	750	1	1.0 U	1.0 U	1.0 U	1.0 U
Inorganics (ug/L)										
ALUMINUM	--	--	--	--	--	200	NA	NA	430 U	170 UJ
ANTIMONY	--	--	--	--	--	6 (1)	NA	NA	60 U	60 U
ARSENIC	--	--	--	--	--	10 (1)	NA	NA	10 U	10 U
BARIUM	--	--	--	--	--	2000 (1)	NA	NA	20 J	200 U
BERYLLIUM	--	--	--	--	--	4 (1)	NA	NA	5 U	5 U
CADMIUM	--	--	--	--	--	5 (1)	NA	NA	5 U	5 U
CALCIUM	--	--	--	--	--	NC (1)	NA	NA	70000	120 J
CHROMIUM	--	--	--	--	--	100 (1)	NA	NA	2.7 J	10 U
COBALT	--	--	--	--	--	1000	NA	NA	50 U	50 U
COPPER	--	--	--	--	--	NC	NA	NA	25 U	25 U
IRON	--	--	--	--	--	300	NA	NA	6300	40 J
LEAD	--	--	--	--	--	15 (1)	NA	NA	10 U	10 U
MAGNESIUM	--	--	--	--	--	NC	NA	NA	9600	5000 U
MANGANESE	--	--	--	--	--	50	NA	NA	71 J	15 UJ
MERCURY	--	--	--	--	--	2 (1)	NA	NA	0.2 U	0.2 U

TABLE 4-6
SUMMARY OF QUALITY CONTROL ANALYTICAL RESULTS
FORMER ACCURATE PLATING AND WEAPONRY SITE
CLEARWATER, FLORIDA

MEDIA	FDEP SCTL			USEPA PRG		FDEP GCTLs	SOIL	GROUNDWATER		
UNITS	DIRECT CONTACT	DIRECT CONTACT	MIGRATION TO	DIRECT CONTACT	DIRECT CONTACT	per Chapter 62-777, F.A.C.	ug/kg	ug/L	ug/L	ug/L
LOCATION	RESIDENTIAL	INDUSTRIAL	GROUNDWATER	RESIDENTIAL	INDUSTRIAL	(ug/L)	--	--	MW03	--
SAMPLE ID							APWTB01	APWTB02	APW-DUP01	APWEB01
SAMPLE DATE							12/6/2005	12/5/2005	12/7/2005	12/7/2005
NICKEL	--	--	--	--	--	100	NA	NA	1.3 R	1 J
POTASSIUM	--	--	--	--	--	NC	NA	NA	2100 J	150 UJ
SELENIUM	--	--	--	--	--	50 (1)	NA	NA	35 U	35 U
SILVER	--	--	--	--	--	100	NA	NA	10 U	10 U
SODIUM	--	--	--	--	--	160000	NA	NA	34000	410 UJ
THALLIUM	--	--	--	--	--	2 (1)	NA	NA	25 U	25 U
VANADIUM	--	--	--	--	--	49	NA	NA	7.7 J	50 U
ZINC	--	--	--	--	--	5000	NA	NA	8.2 UJ	60 U

(1) = The GCTL is the Federal Maximum Contaminant Level (MCL).

Concentrations shown in micrograms per liter (ug/L)

J - Estimated Concentration

R - Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable

U - Analyte concentration was below laboratory MDL

NC - No Criteria available

NA - Not Analyzed

5.0 DISCUSSION

5.1 SOIL DISCUSSION

Analytical results from surface soil sample APW-SS01 indicated an arsenic concentration of 30.0 mg/kg exceeding the respective USEPA Region IX Residential Direct Exposure and Industrial PRGs and FDEP Residential Direct Exposure and Industrial SCTLs. Analytical results from APW-SS02 also indicated an arsenic concentration of 0.97 mg/kg exceeding the USEPA Region IX PRG for Residential Direct Exposure. The source of arsenic contamination in the two soil samples is uncertain [38]. These samples were collected within the drainage ditch located along the southern site boundary. Although at the time the ditch was dry, it can be assumed the ditch has collected water via sheet flow from the southern portion of the Site as well as directly via rainwater. Through percolation of this water to the water table, an acidic environment may have been created in the surface soil environment similar to the acidic environment that exists in the groundwater at the Site (i.e., pH values from groundwater samples ranged from approximately 5 to 6 standard units). In this acidic environment, arsenic may be present in soil as $H_2AsO_4^-$ (Hydrogen Arsenate), a mobile form of arsenic. Residual arsenic concentrations in the surface soil may be present due to adsorption of the mobile arsenic to the soil.

Chromium concentrations were also detected in soil samples APW-SS01 and APW-SS02 at levels exceeding the USEPA Region IX Residential Direct Exposure and Industrial PRGs. Chromium is likely present at the Site as a result of previous plating operations [38].

Analytical results from soil sample APW-SS01 also indicated a nickel concentration of 150 mg/kg, exceeding the SCTL for Leachability of 130 mg/kg, and an iron concentration of 82,000 mg/kg, exceeding the SCTL for Residential Direct Exposure of 53,000 mg/kg. Nickel is likely present at the Site as a result of previous plating operations [38]. The source of iron is unknown. According to the United States Geological Survey, background concentrations of iron in soil range from 10,000 and 11,000 mg/kg at the Site [40]. Excluding the aforementioned exceedance, iron concentrations in soil range 830 mg/kg to 1,000 mg/kg at the Site.

5.2 SEDIMENT DISCUSSION

Analytical results from sediment sample APW-SED01 indicated concentrations of chromium at 53 mg/kg and copper at 20 mg/kg, slightly exceeding the SQAGs and ETETs of 52.3 mg/kg and 18.7 mg/kg, respectively. This sample was collected near Calumet Street and is the furthest downgradient from the Site. Copper and chromium are common metals associated with plating activities [38], but their absence in sediment samples collected closer to the Site suggests the Site may not be the source of these concentrations encountered in this sample.

5.3 GROUNDWATER DISCUSSION

5.3.1 Groundwater Analytical Results

Analytical results from the five shallow monitoring wells and one deep monitoring well indicate concentrations of aluminum, arsenic, chlorobenzene, PCE, TCE, cis-1,2-DCE, and vinyl chloride present at levels greater than the FDEP GCTLs. For the purpose of this discussion, it is assumed that groundwater samples collected from monitoring wells NMW-01 and NMW-02 represent background groundwater concentrations at the Site. A discussion of FDEP GCTL exceedances per monitoring well (from shallow to deep) and general groundwater geochemistry is provided below.

Shallow Monitoring Well NMW-03

Analytical results indicate concentrations of cis-1,2-DCE at 2,300 µg/L, PCE at 200 µg/L, TCE at 290 µg/L (estimated value), and vinyl chloride at 2.3 µg/L (estimated value). These concentrations exceed the respective GCTLs of 70 µg/L for cis-1,2-DCE, 3 µg/L for PCE and TCE, and 1 µg/L for vinyl chloride. However, these concentrations are less than 10 percent of solubility for PCE [2.25 milligrams per liter (mg/L)] and TCE (1 mg/L), generally indicative of the presence of Dense Non-Aqueous Phase Liquid (DNAPL) [39]. The presence of PCE and TCE in comparison to the presence of cis-1,2-DCE also suggests reductive dechlorination of the parent chlorinated solvents (PCE and TCE) is occurring in groundwater at the Site.

The groundwater sample collected from this well also contained aluminum at a concentration of 14,000 µg/L, greater than the respective GCTL of 200 µg/L. Aluminum is not typically an analyte associated with plating operations [38]. The turbidity measurement reported from this groundwater sample was 898 nephelometric turbidity units (NTUs). The elevated concentration of aluminum may be attributed to the increased turbidity associated with this sample. A filtered groundwater sample from NMW-03 may provide a more representative concentration of aluminum present in groundwater in the vicinity of this well at the Site.

Duplicate Sample APW-DUP01

Duplicate groundwater sample APW-DUP01 was also collected from this monitoring well. Analytical results from this sample did not indicate any Federal MCLs or FDEP GCTL exceedances. The elevated concentrations of PCE and TCE from the split groundwater sample collected from NMW-03 suggest a laboratory quality control issue. Sample data such as chromatographs and surrogate recoveries from the duplicate sample were not included in the laboratory reports received by TtNUS and thus were unavailable for review. These documents should be reviewed to assist in identifying any laboratory quality control issues potentially associated with this sample.

Shallow Monitoring Well NMW-04

Analytical results indicate concentrations of chlorobenzene at 190 µg/L, greater than the respective GCTL of 100 µg/L, cis-1,2-DCE at 1,300 µg/L, PCE at 100 µg/L, TCE at 86 µg/L (estimated value) and vinyl chloride at 3.6 µg/L. The presence of PCE and TCE in comparison to the presence of cis-1,2-DCE further substantiates the degradation of parent chlorinated solvents (PCE and TCE) is occurring at the Site.

Shallow Monitoring Well HSAMW-07

Analytical results from monitoring well HSAMW-07 indicate concentrations of aluminum at 930 µg/L. As previously stated, the source of the aluminum is unknown [38]. Turbidity measurements from this groundwater sample were recorded at 12 NTUs, which would not interfere with the laboratory analytical method (i.e., induced coupled plasma).

Deep Monitoring Well NMW-08

Analytical results from monitoring well NMW-08 indicate concentrations of arsenic at 13 µg/L, exceeding the GCTL of 10 µg/L. The source of arsenic at this depth (screened at 56 to 66 ft bls) is unknown; however, a more comprehensive understanding of the groundwater geochemical environment, with emphasis on ferric and ferrous iron concentrations, alkalinity, carbon dioxide, and laboratory analyzed pH, may provide insight as to the form, mobility, and source of this arsenic. Information regarding contaminant mass in saturated soils at this depth would also provide insight as to any potential arsenic adsorption occurring within this interval.

5.3.2 Groundwater Geochemistry

Dissolved oxygen measurements were obtained from water quality measurements from the six monitoring wells. These measurements ranged from 0.07 to 0.39 mg/L, indicating an anaerobic groundwater environment exists at the Site. As stated previously, pH values at the Site ranged from approximately 5 to 6 standard units, and site turbidity measurements ranged from 2.7 NTUs to 898 NTUs.

Although common groundwater parameters such as dissolved oxygen, pH, and turbidity are known, a more detailed groundwater investigation of groundwater chemistry including analyses of common electron acceptors (i.e., nitrate/nitrite, iron, sulfate, hydrogen sulfide, etc.) and a baseline analysis of the groundwater microbial community, with emphasis on *Dehalococcoides Sp.* (a microorganism commonly associated with the reductive dechlorination), may provide insight as to the rate and process of reductive dechlorination occurring at the Site.

5.3.3 Groundwater Turbidity

The USEPA, Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) indicate groundwater samples should be collected at 10 nephelometric turbidity units (NTUs) or less. The FDEP Standard Operating Procedures (SOPs) 001/01 for Groundwater Sampling (i.e., FS 2200) establishes the turbidity threshold for groundwater sampling at 20 NTUs.

Two groundwater samples, HSAMW07 and NMW-3, were collected with turbidity values exceeding USEPA guidance criteria for turbidity (i.e. < 10 NTUs). A discussion regarding sample turbidity and the potential effect turbidity has on elevating groundwater analytical results is provided below.

A turbidity value of 12 NTUs was recorded from groundwater sample HSAMW-07, greater than the USEPA turbidity threshold (i.e., 10 NTUs) and less than the FDEP turbidity threshold (i.e., 20 NTUs). Analytical results indicated concentrations of aluminum [930 micrograms per liter (µg/L)] and iron (3,800 µg/L) were encountered in this sample in excess of the FDEP Groundwater Cleanup Target Levels (GCTLs) of 200 µg/L and 300 µg/L, respectively. Although the elevated concentrations exceed the respective GCTLs and the recorded turbidity value exceeds the USEPA guidance criteria for turbidity in groundwater, a filtered groundwater sample does not appear to be warranted from this well.

A turbidity value of 898 NTUs was recorded from groundwater sample NMW-8. This turbidity value exceeds the USEPA and FDEP turbidity threshold values. Analytical results indicated an arsenic concentration of 12.0 µg/L, exceeding the FDEP GCTL and federal MCL of 10.0 µg/L. Filtered and unfiltered groundwater sample collection may be warranted from this well. It should be noted that this well is the only on-site deep well [approximately 66 feet below land surface (bls)] with a potentiometric surface elevation appears to be approximately 45 feet bls recorded during groundwater sampling. As a result, analytical and geochemical results from this well should not be compared to groundwater samples collected from the shallow aquifer (i.e., potentiometric surface elevations ranging from 3.5 to 5.5 feet) at the Site.

5.4 EXPOSURE PATHWAY EVALUATION

5.4.1 Soil Pathway

This exposure pathway is a concern at the Site. Sample results from surface soil samples indicate concentrations of arsenic, chromium, nickel, and lead at levels exceeding the USEPA Region IX PRG and FDEP SCTL for residential direct exposure. These exceedances represent the highest risk to exposure via direct contact. Development plans for the Site are unknown at this time; however, appropriate measures to minimize the potential for future direct exposure (i.e., soil removal, engineering controls, institutional controls, etc.) are recommended.

5.4.2 Sediment

This exposure pathway is under scrutiny, but not yet a concern to the Site. Analytical results from sediment sample APW-SED01 indicate concentrations of chromium and copper slightly exceeding the respective Florida SQAGs and ETETs values. This sample was collected near Calumet Street and is the furthest downgradient from the site. The absence of these analytes from upgradient sediment samples may indicate the potential for a second source or a non-point source release that may have occurred in the past.

5.4.3 Groundwater

This exposure pathway is a concern to the Site. Sample results from three shallow wells and one deep well indicate the presence of chlorinated solvents, arsenic, and aluminum at concentrations exceeding the respective Federal MCLs and FDEP GCTLs. Groundwater information pertaining to off-site contamination was not available for this Site. As a result, it is unknown if groundwater contamination is migrating offsite.

5.5 DATA QUALITY OBJECTIVES DISCUSSION

DQOs were designed to assure that the overall project goals were met during the course of the investigation. USEPA Guidance Document titled *Guidance for the Data Quality Objectives Process* (EPA QA/G-4) was consulted to develop the project specific DQOs [5]. The DQOs for this investigation were accomplished during assessment activities. The DQOs were provided in the combined PA/SI Work Plan/QAPP [41]

6.0 SUMMARY AND CONCLUSION

TtNUS has completed assessment activities in support of this Draft PA/SI Report for the Former Accurate Plating and Weaponry Site located at 1937 Calumet Street, Clearwater, Pinellas County, Florida.

The purpose of this PA/SI is to a) determine whether a release of hazardous substances has occurred; b) determine if a contaminant source is present at the Site; c) evaluate the environmental impact(s) of contamination (if any) to the Site and nearby receptor pathways; and, d) provide the FDEP with sufficient data to complete the USEPA HRS Scoring Evaluation.

Findings of the assessment indicate a) a release has occurred at the Site; b) this release has contaminated soil and groundwater media at the Site; and c) the soil and groundwater receptor pathways do appear to be impacted.

Soil sample results from surface soil samples indicate concentrations of arsenic, chromium, nickel and iron at levels exceeding the respective USEPA Region IX PRGs and FDEP SCTLs primarily for residential direct exposure. These exceedances represent the highest risk to exposure via direct contact. Development plans are unknown regarding the Site at this time; however, appropriate measures to minimize the potential for future direct exposure (i.e., soil removal, institutional controls, etc.) are recommended. Additional soil sampling is also recommended at this Site.

Sediment sample results from sediment sample APW-SED01 indicate concentrations of chromium and copper slightly exceeding the Florida SQAGs and ETETs. The absence of these analytes from upgradient sediment samples may indicate a second potential source or a non-point source release in the past. Additional sediment sampling is recommended at this Site.

Groundwater sample results from three shallow wells and one deep well indicate the presence of chlorinated solvents, arsenic, and aluminum at concentrations exceeding the respective Federal MCLs and FDEP GCTLs. Groundwater information pertaining to off-site contamination is not available for this Site. As a result, it is unknown if off-site groundwater contamination exist. Additional groundwater assessment is recommended, specifically on the property located to the adjacent east of Allen's Creek and in the southeastern portion of the Site.

To conclude, the results of this PA/SI indicate additional CERCLA action is warranted at this Site.

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APPENDIX A
FIELD DATA SHEETS

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Amcast Plant
Project No.: 112C00B8

[] Surface Soil
[] Subsurface Soil
[✓] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: APW-SE001
Sample Location: APW-SE001
Sampled By: Rone
C.O.C. No.: 4-EH 006099-120905-0005 / 4-0004

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

Date: 12/7/05	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Time: 1440	0-6"	Brn	C&S gm sands
Method: NA			Sat. Sat.
Monitor Reading (ppm):			No Stn/Odr

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 - VOCs	(3) - 40 mL	✓	
6010B - TM	(1) - 8oz.	✓	

OBSERVATIONS / NOTES:

CLP No. MD3CX5

MAP:

See Work Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): S. Rone

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112C00158

[] Surface Soil
[] Subsurface Soil
[X] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: APW-SED02
Sample Location: APW-SED02
Sampled By: Rose
C.O.C. No.: 4-15100 L099 - 120905 -0005, " -0004

Type of Sample:
[X] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05 Time: 1510 Method: HA Monitor Reading (ppm): NA	0-6"	Brn	Crs grn sands Sat. sat No Stn/No odor

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 VOCs	(3) 40 mL	✓	
6010B TM	(1) 4 oz.	✓	

OBSERVATIONS / NOTES:

CLP No. MDSCX6

MAP:

See Work Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): S. Rose

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112C00136

[] Surface Soil
[] Subsurface Soil
[✓] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: APW-SED05
Sample Location: APW SED05
Sampled By: Rose
C.O.C. No.: 4-120605-120905-0005, 0004

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05	0-6"	Brn	Crs grn Sands
Time: 1540			Ext. Sat
Method: HA			w. Silt/Clay
Monitor Reading (ppm): -			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 VOCs	(3) 40 ml	✓	
6010B TM	(1) 8 oz.	✓	

OBSERVATIONS / NOTES:

CLP No. MD3CX7

MAP:

See Work Plan

Circle if Applicable:

MS/MSD	Duplicate ID No.:

Signature(s): S. Rose

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112G00A8X

[] Surface Soil
[] Subsurface Soil
[✓] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: AW-SED04
Sample Location: AW-SED04
Sampled By: [illegible]
C.O.C. No.: 4-15/006099-120905-0003 / 4-0004

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05 Time: 1610 Method: NA Monitor Reading (ppm):	0-6"	Brn	Crs grn sand wet. Sat no Stn/odor

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 VOCs	(3) 40 mL	✓	
6010 TM	(1) 8oz	✓	

OBSERVATIONS / NOTES:

CLP No. MD3CX8

MAP:

See Work Plan

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	None

Signature(s): S. [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112C00188

[] Surface Soil
[] Subsurface Soil
[✓] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: APW-SED05
Sample Location: APW-SED05
Sampled By: [illegible]
C.O.C. No.: 4-1390060M - 120905 - 0005
" 1-0004

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/4/05 Time: 1640 Method: HA Monitor Reading (ppm): -	0-6"	Brn	Crse grn Sands No Stn / Odor Ext. Sat

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 - VOCs	(3) - 40 ml	✓	
6010B - TM	(1) - 8 oz	✓	

OBSERVATIONS / NOTES:

CLP No. MD3CX9

MAP:

See Site Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): S. [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112C00188

[✓] Surface Soil
[] Subsurface Soil
[] Sediment
[] Other:
[] QA Sample Type:

Sample ID No.: APW-SS01
Sample Location: APW-SS01
Sampled By: Rowe
C.O.C. No.: 4-120605-1200 6099 - 120905-0002 / 4-0001

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05	0-6"	Brn	Crs & fine sands
Time: 1230			no Sat Stn/Odor
Method: HA			
Monitor Reading (ppm): -			

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 - VOCs	(3) 40 ml	✓	
6010B - TM	(1) 4oz	✓	

OBSERVATIONS / NOTES:

CLP No. MD3C40

MAP:

See Work Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): S. Rowe

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Academic Parking	Sample ID No.: APW-SS02
Project No.: 112C00180	Sample Location: APW-SS02
	Sampled By: [illegible]
[✓] Surface Soil	C.O.C. No.: 4-15/006089-12 0905 0001 / 4-0004
[] Subsurface Soil	
[] Sediment	Type of Sample:
[] Other:	[✓] Low Concentration
[] QA Sample Type:	[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05	0-6"	Tan	CRS - to - Med Grn Sands
Time: 1350			No Stn /Snl /Odor
Method: HA			
Monitor Reading (ppm): -			

COMPOSITE SAMPLE DATA:

	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date:				
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 - VOCs	(3) - 40 mL	✓	
6010B - TM	(1) - 8 oz	✓	

OBSERVATIONS / NOTES:

CLP No. MD3C41

MAP:

See Work Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): [signature]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Accurate Plating
Project No.: 112C00185

[✓] Surface Soil
[ ] Subsurface Soil
[ ] Sediment
[ ] Other:
[ ] QA Sample Type:

Sample ID No.: APW-5503
Sample Location: APW-5503
Sampled By: [illegible]
C.O.C. No.: 4-151006099-[illegible]

Type of Sample:
[✓] Low Concentration
[ ] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/7/05 Time: 1410 Method: HA Monitor Reading (ppm): -	0-6	Brn	[illegible] [illegible] Silt / Sat / [illegible]

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 VOCs	(3) - 40 ml	✓	
6010B TM	(1) - 8 oz.	✓	

OBSERVATIONS / NOTES:

CLP No. MD3C92

MAP:

See Work Plan

Circle if Applicable:

MS/MSD

Duplicate ID No.: None

Signature(s): [illegible]

Tetra Tech NUS, Inc.

SOIL & SEDIMENT SAMPLE LOG SHEET

Project Site Name: Former Account Parking
Project No.: 112C00138

[] Surface Soil
[✓] Subsurface Soil
[] Sediment
[] Other: ______
[] QA Sample Type: ______

Sample ID No.: APW-SB01
Sample Location: APW-SB01
Sampled By: Rowe
C.O.C. No.: 4-151006099-120905-0005 / " -0004

Type of Sample:
[✓] Low Concentration
[] High Concentration

GRAB SAMPLE DATA:

	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Date: 12/17/05 Time: 0930 Method: HA Monitor Reading (ppm): ✓	+ 2-3'	BRN	C/S grain sand No Sat / Stn / No Odor

COMPOSITE SAMPLE DATA:

Date:	Time	Depth Interval	Color	Description (Sand, Silt, Clay, Moisture, etc.)
Method:				
Monitor Readings (Range in ppm):				

SAMPLE COLLECTION INFORMATION:

Analysis	Container Requirements	Collected	Other
8260 VOCs	3 - 40mL	✓	
6010B TM	1 - 8oz	✓	

OBSERVATIONS / NOTES:

CLP No. MD3CX4

MAP:

See Work Plan

Circle if Applicable:

MS/MSD	Duplicate ID No.:
	NA

Signature(s): S. Rowe

Tetra Tech NUS, Inc.

DOCUMENTATION OF FIELD CALIBRATION

PROJECT NAME : Former Accurate Plating Site

SITE NAME: ______

PROJECT No.: 112C00138

INSTRUMENT NAME/MODEL: ______

MANUFACTURER: ______

SERIAL NUMBER: ______

Date of Calibration	Instrument Name and Model	Instrument I.D. Number	Person Performing Calibration	Instrument Settings		Instrument Readings		Calibration Standard (Lot No.)	Remarks and Comments
				Pre-calibration	Post-calibration	Pre-calibration	Post-calibration		
12/6/05	YSI 556	05H2352	CG	Cond		1410	1409		
				pH 7		7.13	7.02		
				pH 10		10.03	10.00		
				pH 4		4.22	4.0		
12/6/05	MultiRae Plus	095-50806	SR	0.0	100.0	0.0	97.8	1FX444	
	PID (10.6)								
12/7/05	MultiRae	095-50806	SR	0.0	100	0.0	100.0	1FX444	
	PID (10.6)								
12/7/05	[illegible] 2020	0597-4098	SR	1.0	0.96	10.0	9.89		
12/8/05	YSI 556	05H2352	CG	Cond		1413	1410		
				pH 7		7.01	7.0		
				pH 10		10.10	10.03		
				pH 4		4.1	4.0		

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER ACCURATE PLATING SITE	SITE LOCATION: CLEARWATER, FLORIDA	
WELL NO: NMW-1	SAMPLE ID: NMW-1 (CLP No. MO3C43 2)	DATE: 12/7/05

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 6.5 feet to 16.5 feet	STATIC DEPTH TO WATER (feet): 5.5	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable) 7 Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
0930	7	7	250	4.50	6.24	24.42	0.774	0.29	17	Clear	None
1030	7	14	250	4.92	6.19	24.47	0.753	0.25	7.4	"	"
*1100	7	21	350	5.10	6.15	24.45	0.691	0.25	2.7	"	"
		Sample Time				1100					

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TINUS/ [illegible]	SAMPLER(S) SIGNATURES: [signature]	SAMPLING INITIATED AT: 1050	SAMPLING ENDED AT: 1100
PUMP OR TUBING DEPTH IN WELL (feet): ~10'	SAMPLE PUMP FLOW RATE (mL per minute): ~200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ___ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER **ACCURATE PLATING SITE**	SITE LOCATION: **CLEARWATER, FLORIDA**

WELL NO: MW-7	SAMPLE ID: MW2 (CLP No: M03C44)	DATE: 12/7/05

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 6.8 feet to 16.8 feet	STATIC DEPTH TO WATER (feet): 3.98	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
- 3.88 = 12.8 x 0.16 = 1.6
______ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
______ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1440	6	6	250	4.73	5.75	25.07	0.442	0.18	8.9	Clear	None
1500	6	12	250	4.79	5.73	25.09	0.442	0.15	4.2	Clear	None
1520	6	18	250	4.81	5.74	25.05	0.441	0.15	3.1	Clear	None
		Sample Time						1520			

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Rome	SAMPLER(S) SIGNATURES: S. R.	SAMPLING INITIATED AT: 1520	SAMPLING ENDED AT: 1520
PUMP OR TUBING DEPTH IN WELL (feet): ~16'	SAMPLE PUMP FLOW RATE (mL per minute): ~200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER ACCURATE PLATING SITE	SITE LOCATION: CLEARWATER, FLORIDA	
WELL NO: MW3	SAMPLE ID: GW MW3 (COP MD3045)	DATE: 12/18/05

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 5.6 feet to 15.6 feet	STATIC DEPTH TO WATER (feet): 5.3	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 15.6 − 5.3 × 0.16 = 1.6 Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable) Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1005	6	6	300	9.69	5.36	24.17	0.398	0.36	119	Cloudy	None
1025	6	12	250	9.51	5.36	24.08	0.395	0.27	241	Cloudy	None
1040	6	18	250	9.49	5.38	24.14	0.351	0.32	279	"	"
1130	6	24	350	10.4	5.33	24.30	0.351	0.36	247	"	"
1200	6	30	250	9.16	5.37	24.15	0.346	0.37	298	"	"
12	6	36	250	9.61	5.43	24.19	0.346	0.40	228	"	"
				~~9.61~~	~~5.49~~	~~24.32~~	~~0.355~~		146		
1310	6	42	250	10.21	5.34	24.46	0.341	0.29	166	"	"
1350	6	48	250	11.29	5.31	24.51	0.378	0.25	898	"	"
				Sample Time:				1350			

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TINUS/	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1340	SAMPLING ENDED AT: 1350
PUMP OR TUBING DEPTH IN WELL (feet): 15	SAMPLE PUMP FLOW RATE (mL per minute): ~200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y N FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: (Y) (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS: Duplicate : (COC N. MD3044)

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER ACCURATE PLATING SITE	SITE LOCATION: CLEARWATER, FLORIDA
WELL NO: NMW-4	SAMPLE ID: NMW-4 (CLP No. MD3C46)
DATE: ~~12/8/05~~ 12/7/05	

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: 6.6 feet to 16.6 feet	STATIC DEPTH TO WATER (feet): 5.6	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH − STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable) (16.6 − 5.6 X 0.16 = 2.07 6
_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1330	7	7	250	4.49	6.34	23.39	0.511	0.39	21.90	Clear	"
1400	7	14	250	4.56	6.26	23.59	0.491	0.12	7.37	"	"
1430	7	21	300	4.74	6.12	23.47	0.477	0.07	4.64	"	"
				Sample Time			1430				

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; 3/16" = 0.0014; 1/4" = 0.0026; 5/16" = 0.004; 3/8" = 0.006; 1/2" = 0.010; 5/8" = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Rae	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1440	SAMPLING ENDED AT: 1430
PUMP OR TUBING DEPTH IN WELL (feet): ~16	SAMPLE PUMP FLOW RATE (mL per minute): ~200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; PP = Peristaltic Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); VT = Vacuum Trap; O = Other (Specify)

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER ACCURATE PLATING SITE		SITE LOCATION: CLEARWATER, FLORIDA
WELL NO: NMW-8	SAMPLE ID: NMW-8 (CLP# M05C?7)	DATE: 12/8/05

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet): 45.34	PURGE PUMP TYPE OR BAILER: ~~Peristaltic~~ Submersible

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
only fill out if applicable)
______ Liters
45.34
TD = 66.12

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
0.01(+ ((0.0026) X 50 + 0.252
0.48 Liters
56.71

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	(x2) PURGE RATE (mlpm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1510	8.3 gal	8.3 gal	700	45.58	7.17	24.36	0.703	0.11	199	Cloudy	None
1520	~~10~~ .5	16.8	600	45.52	7.15	24.52	0.717	0.10	89.7	"	"
1525	~~45~~ 1	17.0	650	45.70	7.15	24.40	0.711	0.07	41.9	Clear	"
1530	1	18.0	625	45.53	7.15	24.39	0.715	0.06	24.3	Clear	"
1535	1	19.0	600	45.53	7.15	24.39	0.718	0.06	15.8	Clear	"
1540	1	20.0	600	45.54	7.14	24.39	0.714	0.06	16.9	Clear	"
1545	1	21.0	600	45.53	7.14	24.39	0.720	0.06	14.5	Clear	"
1550	9	30	600	45.53	7.14	24.42	0.725	0.06	10.46	Clear	"
1600	5	35	600	45.61	7.14	24.59	0.730	0.05	14.3	Clear	"
1610	5	40	600	45.72	7.14	24.56	0.727	0.05	8.68	Clear	"
		Sample Time = 1610									

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): 1/8" = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/ Rome	SAMPLER(S) SIGNATURES: S Rome	SAMPLING INITIATED AT: 1600	SAMPLING ENDED AT: 1610
PUMP OR TUBING DEPTH IN WELL (feet): 50	SAMPLE PUMP FLOW RATE (mL per minute): 1000 mL	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS: Sampled via Submersible Pump @ 55' bls, obstruction in well @ 55'

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

5.85
5.00

Tetra Tech NUS / FDEP Groundwater Sampling Sheet

SITE NAME: FORMER ACCURATE PLATING SITE	SITE LOCATION: CLEARWATER, FLORIDA	
WELL NO: 115A MW-7	SAMPLE ID: 115A MW-7 (CCVP # MD36 48)	DATE: 12/7/05

PURGING DATA

WELL DIAMETER (inches): 2"	TUBING DIAMETER (inches): 3/16	WELL SCREEN INTERVAL DEPTH: 6.6 feet to 16.6 feet	STATIC DEPTH TO WATER (feet): 4.59	PURGE PUMP TYPE OR BAILER: Peristaltic

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
(only fill out if applicable) 12.06 = [illegible] 1.92
_____ Liters

EQUIPMENT VOLUME PURGE: 1 EQUIPMENT VOL. = PUMP VOLUME + (TUBING CAPACITY X TUBING LENGTH) + FLOW CELL VOLUME
(only fill out if applicable)
_____ Liters

INITIAL PUMP OR TUBING DEPTH IN WELL (feet):	FINAL PUMP OR TUBING DEPTH IN WELL (feet):	PURGING INITIATED AT:	PURGING ENDED AT:	TOTAL VOLUME PURGED (Liters):

TIME	VOLUME PURGED (Liters)	CUMUL. VOLUME PURGED (Liters)	PURGE RATE (ml/pm)	DEPTH TO WATER (feet)	pH (standard units)	TEMP. (°C)	COND. (µmhos/cm or µS/cm)	DISSOLVED OXYGEN (circle mg/L or % saturation)	TURBIDITY (NTUs)	COLOR (describe)	ODOR (describe)
1130	7	7	300	5.91	6.34	24.17	0.525	0.25	72	cloudy	None
1200	7	14	300	8.90	6.31	24.42	0.511	0.12	45	Cloudy	None
1230	7	21	225	8.91	6.26	24.47	0.499	0.16	12	Clear	None
			Sample Time					1230			

WELL CAPACITY (Gallons Per Foot): **0.75"** = 0.02; **1"** = 0.04; **1.25"** = 0.06; **2"** = 0.16; **3"** = 0.37; **4"** = 0.65; **5"** = 1.02; **6"** = 1.47; **12"** = 5.88
TUBING INSIDE DIA. CAPACITY (Gal./Ft.): **1/8"** = 0.0006; **3/16"** = 0.0014; **1/4"** = 0.0026; **5/16"** = 0.004; **3/8"** = 0.006; **1/2"** = 0.010; **5/8"** = 0.016

SAMPLING DATA

SAMPLED BY (PRINT) / AFFILIATION: TtNUS/	SAMPLER(S) SIGNATURES:	SAMPLING INITIATED AT: 1220	SAMPLING ENDED AT: 1230
PUMP OR TUBING DEPTH IN WELL (feet): ~16.0	SAMPLE PUMP FLOW RATE (mL per minute): ~200	TUBING MATERIAL CODE: Teflon	
FIELD DECONTAMINATION: (Y) N	FIELD-FILTERED: Y (N) FILTER SIZE: ____ µm Filtration Equipment Type:	DUPLICATE: Y (N)	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH		
1	3	CG	40 ml	HCL	-	<2	VOAs	SM
1	1	PE	1 L	HNO3	-	<2	TAL METALS	PP

REMARKS:

MATERIAL CODES: **AG** = Amber Glass; **CG** = Clear Glass; **PE** = Polyethylene; **PP** = Polypropylene; **S** = Silicone; **T** = Teflon; **O** = Other (Specify)

SAMPLING/PURGING EQUIPMENT CODES: **APP** = After Peristaltic Pump; **B** = Bailer; **BP** = Bladder Pump; **ESP** = Electric Submersible Pump; **PP** = Peristaltic Pump; **RFPP** = Reverse Flow Peristaltic Pump; **SM** = Straw Method (Tubing Gravity Drain); **VT** = Vacuum Trap; **O** = Other (Specify)

APPENDIX B

DEEP MONITORING WELL CONSTRUCTION DIAGRAM

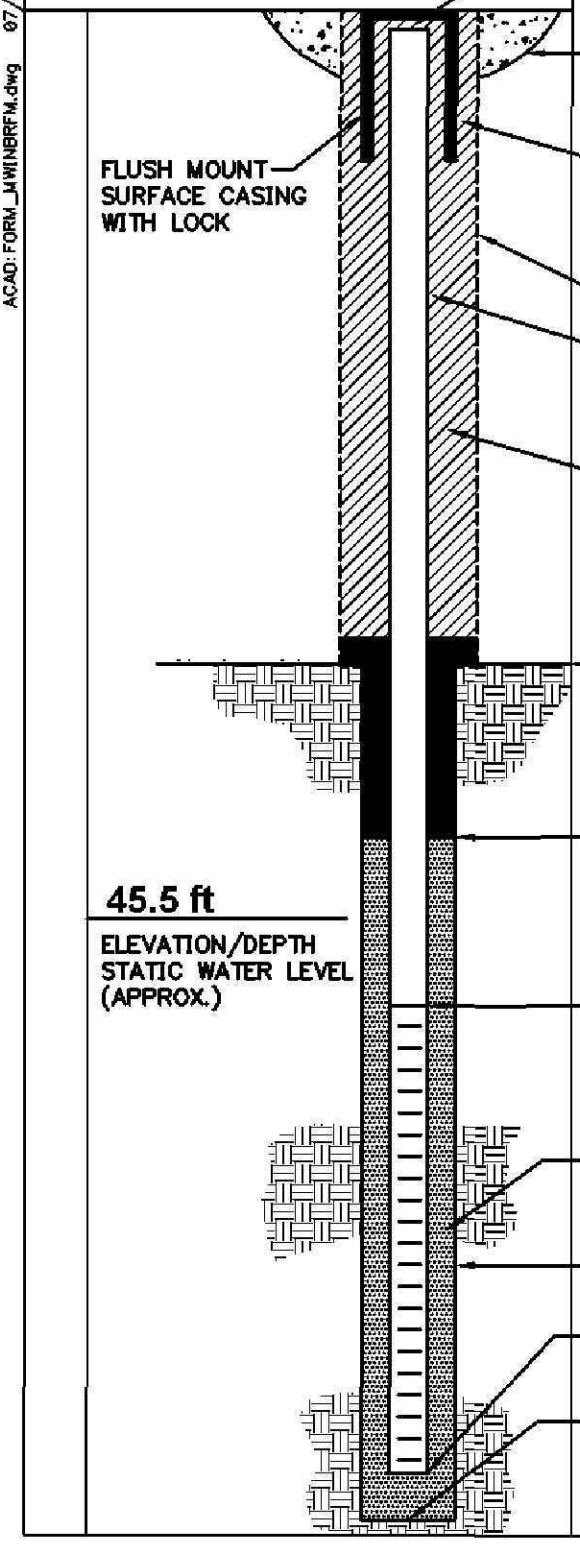
WELL NO.: NMW-8

Tetra Tech NUS, Inc.

MONITORING WELL SHEET
CONSTRUCTION DIAGRAM

PROJECT Former Accurate Plating Site	LOCATION 1937 Calumet Street	DRILLER Sonic Drilling
PROJECT NO. 112C00138	BORING NMW-8	DRILLING METHOD Rotosonic
DATE BEGUN 8/8/2005	DATE COMPLETED 8/9/2005	
FIELD GEOLOGIST H. Engle		DEVELOPMENT METHOD Sub-Pump
GROUND ELEVATION NA	DATUM NA	

ACAD: FORM_MWNBRFM.dwg 07/20/99 INL



ELEVATION TOP OF RISER: NA

TYPE OF SURFACE SEAL: Type I Portland Cement

TYPE OF PROTECTIVE CASING: NA

I.D. OF PROTECTIVE CASING: NA

DIAMETER OF HOLE: 8-5/8 - inch

TYPE OF RISER PIPE: 2-inch diamter sch 40 PVC

RISER PIPE I.D.: 1/78-inch

TYPE OF BACKFILL/SEAL: Type I Portland Cement

ELEVATION/DEPTH TOP OF BENTONITE: NA / 52.0

ELEVATION/DEPTH TOP OF SAND: NA / 54.0

ELEVATION/DEPTH TOP OF SCREEN: NA / 56.0 ft

TYPE OF SCREEN: threaded sch 40 PVC

SLOT SIZE x LENGTH: 10 slot x 10 ft

TYPE OF SAND PACK: 20/30 Silica

DIAMETER OF HOLE IN BEDROCK: 8-5/8-inch

CORE/REAM: NA

ELEVATION / DEPTH BOTTOM OF SCREEN: NA / 66.0 ft

ELEVATION / DEPTH BOTTOM OF SAND: NA / 66.5 ft

ELEVATION/DEPTH BOTTOM OF HOLE: NA / 67.0 ft

BACKFILL MATERIAL BELOW SAND: Native Soils

APPENDIX C
LABORATORY ANALYTICAL REPORTS

Sample **1342** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APW-SB01 /

Media: SUBSURFACE SOIL

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 09:30

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.97 UJ	UG/KG	Dichlorodifluoromethane
0.97 U	UG/KG	Chloromethane
0.97 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.97 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.97 U	UG/KG	Bromomethane
0.97 U	UG/KG	Cyclohexane
0.97 UJ	UG/KG	Vinyl Chloride
0.97 U	UG/KG	Chloroethane
0.97 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.97 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
3.8	UG/KG	Methylene Chloride
9.7 U	UG/KG	Acetone
0.97 U	UG/KG	Carbon Disulfide
0.97 UJ	UG/KG	Methyl Acetate
0.97 U	UG/KG	1,1-Dichloroethane
0.97 U	UG/KG	cis-1,2-Dichloroethene
0.97 U	UG/KG	2,2-Dichloropropane
1.9 U	UG/KG	Methyl Ethyl Ketone
0.97 U	UG/KG	Bromochloromethane
4.8 U	UG/KG	trans-1,2-Dichloroethene
0.97 U	UG/KG	Chloroform
0.97 U	UG/KG	1,2-Dichloroethane
0.97 U	UG/KG	1,1,1-Trichloroethane
0.97 U	UG/KG	1,1-Dichloropropene
0.97 U	UG/KG	Carbon Tetrachloride
0.97 U	UG/KG	Bromodichloromethane
0.97 U	UG/KG	Methyl Isobutyl Ketone
0.97 U	UG/KG	1,2-Dichloropropane
0.97 U	UG/KG	Methylcyclohexane
0.97 U	UG/KG	Dibromomethane
0.97 U	UG/KG	trans-1,3-Dichloropropene
0.97 U	UG/KG	Trichloroethene (Trichloroethylene)
0.97 U	UG/KG	Benzene
0.97 U	UG/KG	Dibromochloromethane
0.97 U	UG/KG	1,1,2-Trichloroethane
0.97 U	UG/KG	cis-1,3-Dichloropropene
4.8 U	UG/KG	Bromoform
0.97 U	UG/KG	Bromobenzene
0.97 U	UG/KG	1,1,2,2-Tetrachloroethane
0.97 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.97 U	UG/KG	1,3-Dichloropropane
0.97 U	UG/KG	Methyl Butyl Ketone
0.97 U	UG/KG	Toluene
0.97 U	UG/KG	Chlorobenzene
0.97 U	UG/KG	1,1,1,2-Tetrachloroethane
0.97 U	UG/KG	Ethyl Benzene
1.9 U	UG/KG	(m- and/or p-)Xylene
0.97 U	UG/KG	o-Xylene
0.97 U	UG/KG	Styrene
1.9 U	UG/KG	1,2,3-Trichloropropane
0.97 U	UG/KG	o-Chlorotoluene
1.9 U	UG/KG	p-Chlorotoluene
1.9 U	UG/KG	1,3-Dichlorobenzene
1.9 U	UG/KG	1,4-Dichlorobenzene
0.97 U	UG/KG	1,2-Dichlorobenzene
0.97 U	UG/KG	1,2-Dibromoethane (EDB)
0.97 U	UG/KG	Isopropylbenzene
0.97 U	UG/KG	n-Propylbenzene
0.97 U	UG/KG	1,3,5-Trimethylbenzene
0.97 U	UG/KG	tert-Butylbenzene
0.97 U	UG/KG	1,2,4-Trimethylbenzene
0.97 U	UG/KG	sec-Butylbenzene
0.97 U	UG/KG	p-Isopropyltoluene
1.9 U	UG/KG	n-Butylbenzene
4.8 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.9 U	UG/KG	1,2,4-Trichlorobenzene
0.97 U	UG/KG	Hexachloro-1,3-Butadiene
1.9 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Methyl Acetate reported as J due to low CCV recovery.
Vinyl Chloride reported as J due to low LC recovery.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1343** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSED01 /

Media: SEDIMENT

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 14:40

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.73 UJ	UG/KG	Dichlorodifluoromethane
0.73 UJ	UG/KG	Chloromethane
0.73 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.73 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.73 U	UG/KG	Bromomethane
0.73 U	UG/KG	Cyclohexane
0.73 U	UG/KG	Vinyl Chloride
0.73 U	UG/KG	Chloroethane
0.73 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.73 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.73 U	UG/KG	Methylene Chloride
7.3 U	UG/KG	Acetone
0.73 UJ	UG/KG	Carbon Disulfide
0.73 U	UG/KG	Methyl Acetate
0.73 U	UG/KG	1,1-Dichloroethane
0.73 U	UG/KG	cis-1,2-Dichloroethene
0.73 U	UG/KG	2,2-Dichloropropane
1.5 U	UG/KG	Methyl Ethyl Ketone
0.73 U	UG/KG	Bromochloromethane
3.6 U	UG/KG	trans-1,2-Dichloroethene
0.73 U	UG/KG	Chloroform
0.73 U	UG/KG	1,2-Dichloroethane
0.73 U	UG/KG	1,1,1-Trichloroethane
0.73 U	UG/KG	1,1-Dichloropropene
0.73 U	UG/KG	Carbon Tetrachloride
0.73 U	UG/KG	Bromodichloromethane
0.73 U	UG/KG	Methyl Isobutyl Ketone
0.73 U	UG/KG	1,2-Dichloropropane
0.73 U	UG/KG	Methylcyclohexane
0.73 U	UG/KG	Dibromomethane
0.73 U	UG/KG	trans-1,3-Dichloropropene
0.73 U	UG/KG	Trichloroethene (Trichloroethylene)
0.73 U	UG/KG	Benzene
0.73 U	UG/KG	Dibromochloromethane
0.73 U	UG/KG	1,1,2-Trichloroethane
0.73 U	UG/KG	cis-1,3-Dichloropropene
3.6 U	UG/KG	Bromoform
0.73 U	UG/KG	Bromobenzene
0.73 U	UG/KG	1,1,2,2-Tetrachloroethane
0.73 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.73 U	UG/KG	1,3-Dichloropropane
0.73 U	UG/KG	Methyl Butyl Ketone
0.73 U	UG/KG	Toluene
0.73 U	UG/KG	Chlorobenzene
0.73 U	UG/KG	1,1,1,2-Tetrachloroethane
0.73 U	UG/KG	Ethyl Benzene
1.5 U	UG/KG	(m- and/or p-)Xylene
0.73 U	UG/KG	o-Xylene
0.73 U	UG/KG	Styrene
1.5 U	UG/KG	1,2,3-Trichloropropane
0.73 U	UG/KG	o-Chlorotoluene
1.5 U	UG/KG	p-Chlorotoluene
1.5 U	UG/KG	1,3-Dichlorobenzene
1.5 U	UG/KG	1,4-Dichlorobenzene
0.73 U	UG/KG	1,2-Dichlorobenzene
0.73 U	UG/KG	1,2-Dibromoethane (EDB)
0.73 U	UG/KG	Isopropylbenzene
0.73 U	UG/KG	n-Propylbenzene
0.73 U	UG/KG	1,3,5-Trimethylbenzene
0.73 U	UG/KG	tert-Butylbenzene
0.73 U	UG/KG	1,2,4-Trimethylbenzene
0.73 U	UG/KG	sec-Butylbenzene
0.29 J	UG/KG	p-Isopropyltoluene
1.5 U	UG/KG	n-Butylbenzene
3.6 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.5 U	UG/KG	1,2,4-Trichlorobenzene
0.73 U	UG/KG	Hexachloro-1,3-Butadiene
1.5 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

All results below the MQL, but above the MDL reported as J.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1344** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSED02 /

Media: SEDIMENT

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 15:10

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.85 UJ	UG/KG	Dichlorodifluoromethane
0.85 UJ	UG/KG	Chloromethane
0.85 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.85 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.85 U	UG/KG	Bromomethane
0.85 U	UG/KG	Cyclohexane
0.85 U	UG/KG	Vinyl Chloride
0.85 U	UG/KG	Chloroethane
0.85 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.85 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.85 U	UG/KG	Methylene Chloride
8.5 U	UG/KG	Acetone
0.85 UJ	UG/KG	Carbon Disulfide
0.85 U	UG/KG	Methyl Acetate
0.85 U	UG/KG	1,1-Dichloroethane
0.85 U	UG/KG	cis-1,2-Dichloroethene
0.85 U	UG/KG	2,2-Dichloropropane
1.7 U	UG/KG	Methyl Ethyl Ketone
0.85 U	UG/KG	Bromochloromethane
4.2 U	UG/KG	trans-1,2-Dichloroethene
0.85 U	UG/KG	Chloroform
0.85 U	UG/KG	1,2-Dichloroethane
0.85 U	UG/KG	1,1,1-Trichloroethane
0.85 U	UG/KG	1,1-Dichloropropene
0.85 U	UG/KG	Carbon Tetrachloride
0.85 U	UG/KG	Bromodichloromethane
0.85 U	UG/KG	Methyl Isobutyl Ketone
0.85 U	UG/KG	1,2-Dichloropropane
0.85 U	UG/KG	Methylcyclohexane
0.85 U	UG/KG	Dibromomethane
0.85 U	UG/KG	trans-1,3-Dichloropropene
0.85 U	UG/KG	Trichloroethene (Trichloroethylene)
0.85 U	UG/KG	Benzene
0.85 U	UG/KG	Dibromochloromethane
0.85 U	UG/KG	1,1,2-Trichloroethane
0.85 U	UG/KG	cis-1,3-Dichloropropene
4.2 U	UG/KG	Bromoform
0.85 U	UG/KG	Bromobenzene
0.85 U	UG/KG	1,1,2,2-Tetrachloroethane
0.85 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.85 U	UG/KG	1,3-Dichloropropane
0.85 U	UG/KG	Methyl Butyl Ketone
0.85 U	UG/KG	Toluene
0.85 U	UG/KG	Chlorobenzene
0.85 U	UG/KG	1,1,1,2-Tetrachloroethane
0.85 U	UG/KG	Ethyl Benzene
1.7 U	UG/KG	(m- and/or p-)Xylene
0.85 U	UG/KG	o-Xylene
0.85 U	UG/KG	Styrene
1.7 U	UG/KG	1,2,3-Trichloropropane
0.85 U	UG/KG	o-Chlorotoluene
1.7 U	UG/KG	p-Chlorotoluene
1.7 U	UG/KG	1,3-Dichlorobenzene
1.7 U	UG/KG	1,4-Dichlorobenzene
0.85 U	UG/KG	1,2-Dichlorobenzene
0.85 U	UG/KG	1,2-Dibromoethane (EDB)
0.85 U	UG/KG	Isopropylbenzene
0.85 U	UG/KG	n-Propylbenzene
0.85 U	UG/KG	1,3,5-Trimethylbenzene
0.85 U	UG/KG	tert-Butylbenzene
0.85 U	UG/KG	1,2,4-Trimethylbenzene
0.85 U	UG/KG	sec-Butylbenzene
0.85 U	UG/KG	p-Isopropyltoluene
1.7 U	UG/KG	n-Butylbenzene
4.2 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.7 U	UG/KG	1,2,4-Trichlorobenzene
0.85 U	UG/KG	Hexachloro-1,3-Butadiene
1.7 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1345** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSED03 /

Media: SEDIMENT

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 15:40

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.68 UJ	UG/KG	Dichlorodifluoromethane
0.68 UJ	UG/KG	Chloromethane
0.68 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.68 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.68 U	UG/KG	Bromomethane
0.68 U	UG/KG	Cyclohexane
0.68 U	UG/KG	Vinyl Chloride
0.68 U	UG/KG	Chloroethane
0.68 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.68 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.68 U	UG/KG	Methylene Chloride
6.8 U	UG/KG	Acetone
0.68 UJ	UG/KG	Carbon Disulfide
0.68 U	UG/KG	Methyl Acetate
0.68 U	UG/KG	1,1-Dichloroethane
0.68 U	UG/KG	cis-1,2-Dichloroethene
0.68 U	UG/KG	2,2-Dichloropropane
1.4 U	UG/KG	Methyl Ethyl Ketone
0.68 U	UG/KG	Bromochloromethane
3.4 U	UG/KG	trans-1,2-Dichloroethene
0.68 U	UG/KG	Chloroform
0.68 U	UG/KG	1,2-Dichloroethane
0.68 U	UG/KG	1,1,1-Trichloroethane
0.68 U	UG/KG	1,1-Dichloropropene
0.68 U	UG/KG	Carbon Tetrachloride
0.68 U	UG/KG	Bromodichloromethane
0.68 U	UG/KG	Methyl Isobutyl Ketone
0.68 U	UG/KG	1,2-Dichloropropane
0.68 U	UG/KG	Methylcyclohexane
0.68 U	UG/KG	Dibromomethane
0.68 U	UG/KG	trans-1,3-Dichloropropene
0.68 U	UG/KG	Trichloroethene (Trichloroethylene)
0.68 U	UG/KG	Benzene
0.68 U	UG/KG	Dibromochloromethane
0.68 U	UG/KG	1,1,2-Trichloroethane
0.68 U	UG/KG	cis-1,3-Dichloropropene
3.4 U	UG/KG	Bromoform
0.68 U	UG/KG	Bromobenzene
0.68 U	UG/KG	1,1,2,2-Tetrachloroethane
0.68 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.68 U	UG/KG	1,3-Dichloropropane
0.68 U	UG/KG	Methyl Butyl Ketone
0.68 U	UG/KG	Toluene
0.68 U	UG/KG	Chlorobenzene
0.68 U	UG/KG	1,1,1,2-Tetrachloroethane
0.68 U	UG/KG	Ethyl Benzene
1.4 U	UG/KG	(m- and/or p-)Xylene
0.68 U	UG/KG	o-Xylene
0.68 U	UG/KG	Styrene
1.4 U	UG/KG	1,2,3-Trichloropropane
0.68 U	UG/KG	o-Chlorotoluene
1.4 U	UG/KG	p-Chlorotoluene
1.4 U	UG/KG	1,3-Dichlorobenzene
1.4 U	UG/KG	1,4-Dichlorobenzene
0.68 U	UG/KG	1,2-Dichlorobenzene
0.68 U	UG/KG	1,2-Dibromoethane (EDB)
0.68 U	UG/KG	Isopropylbenzene
0.68 U	UG/KG	n-Propylbenzene
0.68 U	UG/KG	1,3,5-Trimethylbenzene
0.68 U	UG/KG	tert-Butylbenzene
0.68 U	UG/KG	1,2,4-Trimethylbenzene
0.68 U	UG/KG	sec-Butylbenzene
0.68 U	UG/KG	p-Isopropyltoluene
1.4 U	UG/KG	n-Butylbenzene
3.4 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.4 U	UG/KG	1,2,4-Trichlorobenzene
0.68 U	UG/KG	Hexachloro-1,3-Butadiene
1.4 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1346** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSED04 /

Media: SEDIMENT

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 16:10

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.79 UJ	UG/KG	Dichlorodifluoromethane
0.79 UJ	UG/KG	Chloromethane
0.79 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.79 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.79 U	UG/KG	Bromomethane
0.79 U	UG/KG	Cyclohexane
0.79 U	UG/KG	Vinyl Chloride
0.79 U	UG/KG	Chloroethane
0.79 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.79 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.79 U	UG/KG	Methylene Chloride
7.9 U	UG/KG	Acetone
0.79 UJ	UG/KG	Carbon Disulfide
0.79 U	UG/KG	Methyl Acetate
0.79 U	UG/KG	1,1-Dichloroethane
0.79 U	UG/KG	cis-1,2-Dichloroethene
0.79 U	UG/KG	2,2-Dichloropropane
1.6 U	UG/KG	Methyl Ethyl Ketone
0.79 U	UG/KG	Bromochloromethane
3.9 U	UG/KG	trans-1,2-Dichloroethene
0.79 U	UG/KG	Chloroform
0.79 U	UG/KG	1,2-Dichloroethane
0.79 U	UG/KG	1,1,1-Trichloroethane
0.79 U	UG/KG	1,1-Dichloropropene
0.79 U	UG/KG	Carbon Tetrachloride
0.79 U	UG/KG	Bromodichloromethane
0.79 U	UG/KG	Methyl Isobutyl Ketone
0.79 U	UG/KG	1,2-Dichloropropane
0.79 U	UG/KG	Methylcyclohexane
0.79 U	UG/KG	Dibromomethane
0.79 U	UG/KG	trans-1,3-Dichloropropene
0.79 U	UG/KG	Trichloroethene (Trichloroethylene)
0.79 U	UG/KG	Benzene
0.79 U	UG/KG	Dibromochloromethane
0.79 U	UG/KG	1,1,2-Trichloroethane
0.79 U	UG/KG	cis-1,3-Dichloropropene
3.9 U	UG/KG	Bromoform
0.79 U	UG/KG	Bromobenzene
0.79 U	UG/KG	1,1,2,2-Tetrachloroethane
0.79 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.79 U	UG/KG	1,3-Dichloropropane
0.79 U	UG/KG	Methyl Butyl Ketone
0.79 U	UG/KG	Toluene
0.79 U	UG/KG	Chlorobenzene
0.79 U	UG/KG	1,1,1,2-Tetrachloroethane
0.79 U	UG/KG	Ethyl Benzene
1.6 U	UG/KG	(m- and/or p-)Xylene
0.79 U	UG/KG	o-Xylene
0.79 U	UG/KG	Styrene
1.6 U	UG/KG	1,2,3-Trichloropropane
0.79 U	UG/KG	o-Chlorotoluene
1.6 U	UG/KG	p-Chlorotoluene
1.6 U	UG/KG	1,3-Dichlorobenzene
1.6 U	UG/KG	1,4-Dichlorobenzene
0.79 U	UG/KG	1,2-Dichlorobenzene
0.79 U	UG/KG	1,2-Dibromoethane (EDB)
0.79 U	UG/KG	Isopropylbenzene
0.79 U	UG/KG	n-Propylbenzene
0.79 U	UG/KG	1,3,5-Trimethylbenzene
0.79 U	UG/KG	tert-Butylbenzene
0.79 U	UG/KG	1,2,4-Trimethylbenzene
0.79 U	UG/KG	sec-Butylbenzene
0.79 U	UG/KG	p-Isopropyltoluene
1.6 U	UG/KG	n-Butylbenzene
3.9 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.6 U	UG/KG	1,2,4-Trichlorobenzene
0.79 U	UG/KG	Hexachloro-1,3-Butadiene
1.6 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1347** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSED05 /

Media: SEDIMENT

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 16:40

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.71 UJ	UG/KG	Dichlorodifluoromethane
0.71 U	UG/KG	Chloromethane
0.71 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.71 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.71 U	UG/KG	Bromomethane
0.71 U	UG/KG	Cyclohexane
0.71 UJ	UG/KG	Vinyl Chloride
0.71 U	UG/KG	Chloroethane
0.71 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.71 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.71 U	UG/KG	Methylene Chloride
7.1 U	UG/KG	Acetone
0.71 U	UG/KG	Carbon Disulfide
0.71 UJ	UG/KG	Methyl Acetate
0.71 U	UG/KG	1,1-Dichloroethane
0.71 U	UG/KG	cis-1,2-Dichloroethene
0.71 U	UG/KG	2,2-Dichloropropane
1.4 U	UG/KG	Methyl Ethyl Ketone
0.71 U	UG/KG	Bromochloromethane
3.5 U	UG/KG	trans-1,2-Dichloroethene
0.71 U	UG/KG	Chloroform
0.71 U	UG/KG	1,2-Dichloroethane
0.71 U	UG/KG	1,1,1-Trichloroethane
0.71 U	UG/KG	1,1-Dichloropropene
0.71 U	UG/KG	Carbon Tetrachloride
0.71 U	UG/KG	Bromodichloromethane
0.71 U	UG/KG	Methyl Isobutyl Ketone
0.71 U	UG/KG	1,2-Dichloropropane
0.71 U	UG/KG	Methylcyclohexane
0.71 U	UG/KG	Dibromomethane
0.71 U	UG/KG	trans-1,3-Dichloropropene
0.71 U	UG/KG	Trichloroethene (Trichloroethylene)
0.71 U	UG/KG	Benzene
0.71 U	UG/KG	Dibromochloromethane
0.71 U	UG/KG	1,1,2-Trichloroethane
0.71 U	UG/KG	cis-1,3-Dichloropropene
3.5 U	UG/KG	Bromoform
0.71 U	UG/KG	Bromobenzene
0.71 U	UG/KG	1,1,2,2-Tetrachloroethane
0.71 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.71 U	UG/KG	1,3-Dichloropropane
0.71 U	UG/KG	Methyl Butyl Ketone
0.71 U	UG/KG	Toluene
0.71 U	UG/KG	Chlorobenzene
0.71 U	UG/KG	1,1,1,2-Tetrachloroethane
0.71 U	UG/KG	Ethyl Benzene
1.4 U	UG/KG	(m- and/or p-)Xylene
0.71 U	UG/KG	o-Xylene
0.71 U	UG/KG	Styrene
1.4 U	UG/KG	1,2,3-Trichloropropane
0.71 U	UG/KG	o-Chlorotoluene
1.4 U	UG/KG	p-Chlorotoluene
1.4 U	UG/KG	1,3-Dichlorobenzene
1.4 U	UG/KG	1,4-Dichlorobenzene
0.71 U	UG/KG	1,2-Dichlorobenzene
0.71 U	UG/KG	1,2-Dibromoethane (EDB)
0.71 U	UG/KG	Isopropylbenzene
0.71 U	UG/KG	n-Propylbenzene
0.71 U	UG/KG	1,3,5-Trimethylbenzene
0.71 U	UG/KG	tert-Butylbenzene
0.71 U	UG/KG	1,2,4-Trimethylbenzene
0.71 U	UG/KG	sec-Butylbenzene
0.71 U	UG/KG	p-Isopropyltoluene
1.4 U	UG/KG	n-Butylbenzene
3.5 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.4 U	UG/KG	1,2,4-Trichlorobenzene
0.71 U	UG/KG	Hexachloro-1,3-Butadiene
1.4 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Methyl Acetate reported as J due to low CCV recovery.
Vinyl Chloride reported as J due to low LC recovery.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1348** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSS02 /

Media: SURFACE SOIL

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 16:50

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.94 UJ	UG/KG	Dichlorodifluoromethane
0.94 UJ	UG/KG	Chloromethane
0.94 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.94 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.94 U	UG/KG	Bromomethane
0.94 U	UG/KG	Cyclohexane
0.94 U	UG/KG	Vinyl Chloride
0.94 U	UG/KG	Chloroethane
0.94 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.94 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.86 J	UG/KG	Methylene Chloride
9.4 U	UG/KG	Acetone
0.94 UJ	UG/KG	Carbon Disulfide
0.94 U	UG/KG	Methyl Acetate
0.94 U	UG/KG	1,1-Dichloroethane
0.94 U	UG/KG	cis-1,2-Dichloroethene
0.94 U	UG/KG	2,2-Dichloropropane
1.9 U	UG/KG	Methyl Ethyl Ketone
0.94 U	UG/KG	Bromochloromethane
4.7 U	UG/KG	trans-1,2-Dichloroethene
0.94 U	UG/KG	Chloroform
0.94 U	UG/KG	1,2-Dichloroethane
0.94 U	UG/KG	1,1,1-Trichloroethane
0.94 U	UG/KG	1,1-Dichloropropene
0.94 U	UG/KG	Carbon Tetrachloride
0.94 U	UG/KG	Bromodichloromethane
0.94 U	UG/KG	Methyl Isobutyl Ketone
0.94 U	UG/KG	1,2-Dichloropropane
0.94 U	UG/KG	Methylcyclohexane
0.94 U	UG/KG	Dibromomethane
0.94 U	UG/KG	trans-1,3-Dichloropropene
0.94 U	UG/KG	Trichloroethene (Trichloroethylene)
0.94 U	UG/KG	Benzene
0.94 U	UG/KG	Dibromochloromethane
0.94 U	UG/KG	1,1,2-Trichloroethane
0.94 U	UG/KG	cis-1,3-Dichloropropene
4.7 U	UG/KG	Bromoform
0.94 U	UG/KG	Bromobenzene
0.94 U	UG/KG	1,1,2,2-Tetrachloroethane
0.94 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.94 U	UG/KG	1,3-Dichloropropane
0.94 U	UG/KG	Methyl Butyl Ketone
0.94 U	UG/KG	Toluene
0.94 U	UG/KG	Chlorobenzene
0.94 U	UG/KG	1,1,1,2-Tetrachloroethane
0.94 U	UG/KG	Ethyl Benzene
1.9 U	UG/KG	(m- and/or p-)Xylene
0.94 U	UG/KG	o-Xylene
0.94 U	UG/KG	Styrene
1.9 U	UG/KG	1,2,3-Trichloropropane
0.94 U	UG/KG	o-Chlorotoluene
1.9 U	UG/KG	p-Chlorotoluene
1.9 U	UG/KG	1,3-Dichlorobenzene
1.9 U	UG/KG	1,4-Dichlorobenzene
0.94 U	UG/KG	1,2-Dichlorobenzene
0.94 U	UG/KG	1,2-Dibromoethane (EDB)
0.94 U	UG/KG	Isopropylbenzene
0.94 U	UG/KG	n-Propylbenzene
0.94 U	UG/KG	1,3,5-Trimethylbenzene
0.94 U	UG/KG	tert-Butylbenzene
0.94 U	UG/KG	1,2,4-Trimethylbenzene
0.94 U	UG/KG	sec-Butylbenzene
0.94 U	UG/KG	p-Isopropyltoluene
1.9 U	UG/KG	n-Butylbenzene
4.7 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.9 U	UG/KG	1,2,4-Trichlorobenzene
0.94 U	UG/KG	Hexachloro-1,3-Butadiene
1.9 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

Results below the MQL, but above the MDL reported as J.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1349** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSS03 /

Media: SURFACE SOIL

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 14:10

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
0.85 UJ	UG/KG	Dichlorodifluoromethane
0.85 U	UG/KG	Chloromethane
0.85 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.85 U	UG/KG	Methyl T-Butyl Ether (MTBE)
0.85 U	UG/KG	Bromomethane
0.85 U	UG/KG	Cyclohexane
0.85 UJ	UG/KG	Vinyl Chloride
0.85 U	UG/KG	Chloroethane
0.85 U	UG/KG	Trichlorofluoromethane (Freon 11)
0.85 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
0.85 U	UG/KG	Methylene Chloride
8.5 U	UG/KG	Acetone
0.85 U	UG/KG	Carbon Disulfide
0.85 UJ	UG/KG	Methyl Acetate
0.85 U	UG/KG	1,1-Dichloroethane
0.85 U	UG/KG	cis-1,2-Dichloroethene
0.85 U	UG/KG	2,2-Dichloropropane
1.7 U	UG/KG	Methyl Ethyl Ketone
0.85 U	UG/KG	Bromochloromethane
4.2 U	UG/KG	trans-1,2-Dichloroethene
0.85 U	UG/KG	Chloroform
0.85 U	UG/KG	1,2-Dichloroethane
0.85 U	UG/KG	1,1,1-Trichloroethane
0.85 U	UG/KG	1,1-Dichloropropene
0.85 U	UG/KG	Carbon Tetrachloride
0.85 U	UG/KG	Bromodichloromethane
0.85 U	UG/KG	Methyl Isobutyl Ketone
0.85 U	UG/KG	1,2-Dichloropropane
0.85 U	UG/KG	Methylcyclohexane
0.85 U	UG/KG	Dibromomethane
0.85 U	UG/KG	trans-1,3-Dichloropropene
0.85 U	UG/KG	Trichloroethene (Trichloroethylene)
0.85 U	UG/KG	Benzene
0.85 U	UG/KG	Dibromochloromethane
0.85 U	UG/KG	1,1,2-Trichloroethane
0.85 U	UG/KG	cis-1,3-Dichloropropene
4.2 U	UG/KG	Bromoform
0.85 U	UG/KG	Bromobenzene
0.85 U	UG/KG	1,1,2,2-Tetrachloroethane
0.85 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
0.85 U	UG/KG	1,3-Dichloropropane
0.85 U	UG/KG	Methyl Butyl Ketone
0.85 U	UG/KG	Toluene
0.85 U	UG/KG	Chlorobenzene
0.85 U	UG/KG	1,1,1,2-Tetrachloroethane
0.85 U	UG/KG	Ethyl Benzene
1.7 U	UG/KG	(m- and/or p-)Xylene
0.85 U	UG/KG	o-Xylene
0.85 U	UG/KG	Styrene
1.7 U	UG/KG	1,2,3-Trichloropropane
0.85 U	UG/KG	o-Chlorotoluene
1.7 U	UG/KG	p-Chlorotoluene
1.7 U	UG/KG	1,3-Dichlorobenzene
1.7 U	UG/KG	1,4-Dichlorobenzene
0.85 U	UG/KG	1,2-Dichlorobenzene
0.85 U	UG/KG	1,2-Dibromoethane (EDB)
0.85 U	UG/KG	Isopropylbenzene
0.85 U	UG/KG	n-Propylbenzene
0.85 U	UG/KG	1,3,5-Trimethylbenzene
0.85 U	UG/KG	tert-Butylbenzene
0.85 U	UG/KG	1,2,4-Trimethylbenzene
0.85 U	UG/KG	sec-Butylbenzene
0.31 J	UG/KG	p-Isopropyltoluene
1.7 U	UG/KG	n-Butylbenzene
4.2 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
1.7 U	UG/KG	1,2,4-Trichlorobenzene
0.85 U	UG/KG	Hexachloro-1,3-Butadiene
1.7 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Methyl Acetate reported as J due to low CCV recovery.
Vinyl Chloride reported as J due to low LC recovery.

All results below the MQL, but above the MDL reported as J.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1350** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWSS01 /

Media: SURFACE SOIL

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/07/2005 13:30

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1.0 UJ	UG/KG	Dichlorodifluoromethane
1.0 UJ	UG/KG	Chloromethane
1.0 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
1.0 U	UG/KG	Methyl T-Butyl Ether (MTBE)
1.0 U	UG/KG	Bromomethane
1.0 U	UG/KG	Cyclohexane
1.0 U	UG/KG	Vinyl Chloride
1.0 U	UG/KG	Chloroethane
1.0 U	UG/KG	Trichlorofluoromethane (Freon 11)
1.0 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
1.9	UG/KG	Methylene Chloride
10 U	UG/KG	Acetone
1.0 UJ	UG/KG	Carbon Disulfide
1.0 U	UG/KG	Methyl Acetate
1.0 U	UG/KG	1,1-Dichloroethane
1.0 U	UG/KG	cis-1,2-Dichloroethene
1.0 U	UG/KG	2,2-Dichloropropane
2.0 U	UG/KG	Methyl Ethyl Ketone
1.0 U	UG/KG	Bromochloromethane
5.0 U	UG/KG	trans-1,2-Dichloroethene
1.0 U	UG/KG	Chloroform
1.0 U	UG/KG	1,2-Dichloroethane
1.0 U	UG/KG	1,1,1-Trichloroethane
1.0 U	UG/KG	1,1-Dichloropropene
1.0 U	UG/KG	Carbon Tetrachloride
1.0 U	UG/KG	Bromodichloromethane
1.0 U	UG/KG	Methyl Isobutyl Ketone
1.0 U	UG/KG	1,2-Dichloropropane
1.0 U	UG/KG	Methylcyclohexane
1.0 U	UG/KG	Dibromomethane
1.0 U	UG/KG	trans-1,3-Dichloropropene
1.0 U	UG/KG	Trichloroethene (Trichloroethylene)
1.0 U	UG/KG	Benzene
1.0 U	UG/KG	Dibromochloromethane
1.0 U	UG/KG	1,1,2-Trichloroethane
1.0 U	UG/KG	cis-1,3-Dichloropropene
5.0 U	UG/KG	Bromoform
1.0 U	UG/KG	Bromobenzene
1.0 U	UG/KG	1,1,2,2-Tetrachloroethane
1.0 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/KG	1,3-Dichloropropane
1.0 U	UG/KG	Methyl Butyl Ketone
1.0 U	UG/KG	Toluene
1.0 U	UG/KG	Chlorobenzene
1.0 U	UG/KG	1,1,1,2-Tetrachloroethane
1.0 U	UG/KG	Ethyl Benzene
2.0 U	UG/KG	(m- and/or p-)Xylene
1.0 U	UG/KG	o-Xylene
1.0 U	UG/KG	Styrene
2.0 U	UG/KG	1,2,3-Trichloropropane
1.0 U	UG/KG	o-Chlorotoluene
2.0 U	UG/KG	p-Chlorotoluene
2.0 U	UG/KG	1,3-Dichlorobenzene
2.0 U	UG/KG	1,4-Dichlorobenzene
1.0 U	UG/KG	1,2-Dichlorobenzene
1.0 U	UG/KG	1,2-Dibromoethane (EDB)
1.0 U	UG/KG	Isopropylbenzene
1.0 U	UG/KG	n-Propylbenzene
1.0 U	UG/KG	1,3,5-Trimethylbenzene
1.0 U	UG/KG	tert-Butylbenzene
1.0 U	UG/KG	1,2,4-Trimethylbenzene
1.0 U	UG/KG	sec-Butylbenzene
0.27 J	UG/KG	p-Isopropyltoluene
2.0 U	UG/KG	n-Butylbenzene
5.0 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
2.0 U	UG/KG	1,2,4-Trichlorobenzene
1.0 U	UG/KG	Hexachloro-1,3-Butadiene
2.0 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

All results below the MQL, but above the MDL reported as J.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1351** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: APWTB01 /

Media: TRIP BLANK - SOIL

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/06/2005 11:00

Ending:

DATA REPORTED ON WET WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1.0 UJ	UG/KG	Dichlorodifluoromethane
1.0 UJ	UG/KG	Chloromethane
1.0 U	UG/KG	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
1.0 U	UG/KG	Methyl T-Butyl Ether (MTBE)
1.0 U	UG/KG	Bromomethane
1.0 U	UG/KG	Cyclohexane
1.0 U	UG/KG	Vinyl Chloride
1.0 U	UG/KG	Chloroethane
1.0 U	UG/KG	Trichlorofluoromethane (Freon 11)
1.0 U	UG/KG	1,1-Dichloroethene (1,1-Dichloroethylene)
1.0 U	UG/KG	Methylene Chloride
10 U	UG/KG	Acetone
1.0 UJ	UG/KG	Carbon Disulfide
1.0 U	UG/KG	Methyl Acetate
1.0 U	UG/KG	1,1-Dichloroethane
1.0 U	UG/KG	cis-1,2-Dichloroethene
1.0 U	UG/KG	2,2-Dichloropropane
1.1 J	UG/KG	Methyl Ethyl Ketone
1.0 U	UG/KG	Bromochloromethane
5.0 U	UG/KG	trans-1,2-Dichloroethene
1.0 U	UG/KG	Chloroform
1.0 U	UG/KG	1,2-Dichloroethane
1.0 U	UG/KG	1,1,1-Trichloroethane
1.0 U	UG/KG	1,1-Dichloropropene
1.0 U	UG/KG	Carbon Tetrachloride
1.0 U	UG/KG	Bromodichloromethane
1.0 U	UG/KG	Methyl Isobutyl Ketone
1.0 U	UG/KG	1,2-Dichloropropane
1.0 U	UG/KG	Methylcyclohexane
1.0 U	UG/KG	Dibromomethane
1.0 U	UG/KG	trans-1,3-Dichloropropene
1.0 U	UG/KG	Trichloroethene (Trichloroethylene)
1.0 U	UG/KG	Benzene
1.0 U	UG/KG	Dibromochloromethane
1.0 U	UG/KG	1,1,2-Trichloroethane
1.0 U	UG/KG	cis-1,3-Dichloropropene
5.0 U	UG/KG	Bromoform
1.0 U	UG/KG	Bromobenzene
1.0 U	UG/KG	1,1,2,2-Tetrachloroethane
1.0 U	UG/KG	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/KG	1,3-Dichloropropane
1.0 U	UG/KG	Methyl Butyl Ketone
1.0 U	UG/KG	Toluene
1.0 U	UG/KG	Chlorobenzene
1.0 U	UG/KG	1,1,1,2-Tetrachloroethane
1.0 U	UG/KG	Ethyl Benzene
2.0 U	UG/KG	(m- and/or p-)Xylene
1.0 U	UG/KG	o-Xylene
1.0 U	UG/KG	Styrene
2.0 U	UG/KG	1,2,3-Trichloropropane
1.0 U	UG/KG	o-Chlorotoluene
2.0 U	UG/KG	p-Chlorotoluene
2.0 U	UG/KG	1,3-Dichlorobenzene
2.0 U	UG/KG	1,4-Dichlorobenzene
1.0 U	UG/KG	1,2-Dichlorobenzene
1.0 U	UG/KG	1,2-Dibromoethane (EDB)
1.0 U	UG/KG	Isopropylbenzene
1.0 U	UG/KG	n-Propylbenzene
1.0 U	UG/KG	1,3,5-Trimethylbenzene
1.0 U	UG/KG	tert-Butylbenzene
1.0 U	UG/KG	1,2,4-Trimethylbenzene
1.0 U	UG/KG	sec-Butylbenzene
1.0 U	UG/KG	p-Isopropyltoluene
2.0 U	UG/KG	n-Butylbenzene
5.0 U	UG/KG	1,2-Dibromo-3-Chloropropane (DBCP)
2.0 U	UG/KG	1,2,4-Trichlorobenzene
1.0 U	UG/KG	Hexachloro-1,3-Butadiene
2.0 U	UG/KG	1,2,3-Trichlorobenzene
NA	%	% Moisture

Dichlorodifluoromethane & Chloromethane reported as J due to low CCV recovery.
Carbon Disulfide reported as J due to low LC recovery.

All results below the MQL, but above the MDL reported as J.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1372** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: APWDUP01 / FIELD QC
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 11:00
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
0.24 J	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	1.0 U	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	1.0 U	UG/L	Chlorobenzene
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.0 U	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
1.0 U	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
0.14 J	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
0.96 J	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	1.0 U	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	0.30 J	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
0.18 J	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery in the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1373** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: APWEBO1 / FIELD QC
Media: EQUIPMENT RINSE BLANK

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 09:15
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
1.0 U	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	0.36 J	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	1.0 U	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	1.0 U	UG/L	Chlorobenzene
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.1	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
25 J	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
1.0 U	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
1.0 U	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
7.3 J	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	1.0 U	UG/L	1,2-Dichlorobenzene
1.6	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	1.0 U	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
0.11 J	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
1.0 U	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery in the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

MEK and Acetone J-qualified due to high recovery in the CCV
All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1374** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: APWTB02 /
Media: TRIP BLANK - WATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/05/2005 16:00
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
1.0 U	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	1.0 U	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	1.0 U	UG/L	Chlorobenzene
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.2	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
1.0 U	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
1.0 U	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
1.1 J	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	1.0 U	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	1.0 U	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
1.0 U	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery on the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1375** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: HSAMW-7 /
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 12:30
Ending:

RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane
1.0 UJ	UG/L	Chloromethane
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)
0.15 J	UG/L	Methyl T-Butyl Ether (MTBE)
1.0 UJ	UG/L	Bromomethane
1.0 U	UG/L	Cyclohexane
1.0 U	UG/L	Vinyl Chloride
1.0 U	UG/L	Chloroethane
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)
1.0 U	UG/L	Methylene Chloride
2.0 U	UG/L	Acetone
1.0 UJ	UG/L	Carbon Disulfide
1.0 UJ	UG/L	Methyl Acetate
1.0 U	UG/L	1,1-Dichloroethane
1.0 U	UG/L	cis-1,2-Dichloroethene
1.0 U	UG/L	2,2-Dichloropropane
5.0 U	UG/L	Methyl Ethyl Ketone
1.0 U	UG/L	Bromochloromethane
1.0 U	UG/L	trans-1,2-Dichloroethene
1.0 U	UG/L	Chloroform
1.0 U	UG/L	1,2-Dichloroethane
1.0 U	UG/L	1,1,1-Trichloroethane
1.0 U	UG/L	1,1-Dichloropropene
1.0 U	UG/L	Carbon Tetrachloride
1.0 U	UG/L	Bromodichloromethane
1.0 U	UG/L	Methyl Isobutyl Ketone
1.0 U	UG/L	1,2-Dichloropropane
1.0 U	UG/L	Methylcyclohexane
1.0 U	UG/L	Dibromomethane
1.0 U	UG/L	trans-1,3-Dichloropropene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)
1.0 U	UG/L	Benzene
1.0 U	UG/L	Dibromochloromethane
1.0 U	UG/L	1,1,2-Trichloroethane
1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 U	UG/L	Bromoform
1.0 U	UG/L	Bromobenzene
1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	1,3-Dichloropropane
2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Toluene
1.0 U	UG/L	Chlorobenzene
1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	(m- and/or p-)Xylene
1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Styrene
1.0 U	UG/L	1,2,3-Trichloropropane
1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	p-Chlorotoluene
1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	p-Isopropyltoluene
1.0 U	UG/L	n-Butylbenzene
2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Hexachloro-1,3-Butadiene
1.0 U	UG/L	1,2,3-Trichlorobenzene

Bromomethane J-qualified due to low recovery on the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

MTBE J-qualified because value is >MDL but <MQL
In the MS/MSD, carbon disulfide had low %rec and methyl acetate a high RPD.

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1376** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: NMW-1 /
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 11:00
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
0.23 J	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	0.12 J	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	1.0 U	UG/L	Chlorobenzene
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.0 U	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
1.0 U	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
0.19 J	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
5.0 U	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	1.0 U	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	0.27 J	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
0.16 J	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery on the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1377** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: NMW-2 /
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 15:20
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
1.0 U	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	0.052 J	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	1.0 U	UG/L	Chlorobenzene
0.50 J	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
1.0 U	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
5.7	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
1.0 U	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
5.0 U	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	1.0 U	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	1.0 U	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
1.0 U	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery on the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1378** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL

Program: SF

Id/Station: NMW-3 /

Media: GROUNDWATER

Produced by: Hale, Sallie

Requestor:

Project Leader: BSCHUSTE

Beginning: 12/08/2005 13:50

Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
5.0 U	UG/L	Dichlorodifluoromethane	5.0 U	UG/L	cis-1,3-Dichloropropene
5.0 UJ	UG/L	Chloromethane	5.0 U	UG/L	Bromoform
5.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	5.0 U	UG/L	Bromobenzene
2.7 J	UG/L	Methyl T-Butyl Ether (MTBE)	5.0 U	UG/L	1,1,2,2-Tetrachloroethane
5.0 UJ	UG/L	Bromomethane	200	UG/L	Tetrachloroethene (Tetrachloroethylene)
5.0 U	UG/L	Cyclohexane	5.0 U	UG/L	1,3-Dichloropropane
2.3 J	UG/L	Vinyl Chloride	10 U	UG/L	Methyl Butyl Ketone
5.0 U	UG/L	Chloroethane	2.6 J	UG/L	Toluene
5.0 U	UG/L	Trichlorofluoromethane (Freon 11)	65	UG/L	Chlorobenzene
3.4 J	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	5.0 U	UG/L	1,1,1,2-Tetrachloroethane
5.0 U	UG/L	Methylene Chloride	5.0 U	UG/L	Ethyl Benzene
10 U	UG/L	Acetone	10 U	UG/L	(m- and/or p-)Xylene
1.8 J	UG/L	Carbon Disulfide	0.90 J	UG/L	o-Xylene
5.0 U	UG/L	Methyl Acetate	5.0 U	UG/L	Styrene
2.7 J	UG/L	1,1-Dichloroethane	5.0 U	UG/L	1,2,3-Trichloropropane
2300	UG/L	cis-1,2-Dichloroethene	5.0 U	UG/L	o-Chlorotoluene
5.0 U	UG/L	2,2-Dichloropropane	5.0 U	UG/L	p-Chlorotoluene
25 U	UG/L	Methyl Ethyl Ketone	3.0 J	UG/L	1,3-Dichlorobenzene
5.0 U	UG/L	Bromochloromethane	16	UG/L	1,4-Dichlorobenzene
73	UG/L	trans-1,2-Dichloroethene	80	UG/L	1,2-Dichlorobenzene
5.0 U	UG/L	Chloroform	5.0 U	UG/L	1,2-Dibromoethane (EDB)
5.0 U	UG/L	1,2-Dichloroethane	5.0 U	UG/L	Isopropylbenzene
5.0 U	UG/L	1,1,1-Trichloroethane	5.0 U	UG/L	n-Propylbenzene
5.0 U	UG/L	1,1-Dichloropropene	5.0 U	UG/L	1,3,5-Trimethylbenzene
5.0 U	UG/L	Carbon Tetrachloride	5.0 U	UG/L	tert-Butylbenzene
5.0 U	UG/L	Bromodichloromethane	5.0 U	UG/L	1,2,4-Trimethylbenzene
5.0 U	UG/L	Methyl Isobutyl Ketone	5.0 U	UG/L	sec-Butylbenzene
5.0 U	UG/L	1,2-Dichloropropane	5.0 U	UG/L	p-Isopropyltoluene
5.0 U	UG/L	Methylcyclohexane	5.0 U	UG/L	n-Butylbenzene
5.0 U	UG/L	Dibromomethane	10 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
5.0 U	UG/L	trans-1,3-Dichloropropene	5.0 U	UG/L	1,2,4-Trichlorobenzene
290 J	UG/L	Trichloroethene (Trichloroethylene)	5.0 U	UG/L	Hexachloro-1,3-Butadiene
0.40 J	UG/L	Benzene	5.0 U	UG/L	1,2,3-Trichlorobenzene
5.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery in the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

Trichloroethene J-qualified due to high % recovery in the LCS
All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1379** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: NMW-4 /
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 14:30
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
2.0 U	UG/L	Dichlorodifluoromethane	2.0 U	UG/L	cis-1,3-Dichloropropene
2.0 UJ	UG/L	Chloromethane	2.0 U	UG/L	Bromoform
2.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	2.0 U	UG/L	Bromobenzene
13	UG/L	Methyl T-Butyl Ether (MTBE)	2.0 U	UG/L	1,1,2,2-Tetrachloroethane
2.0 UJ	UG/L	Bromomethane	100	UG/L	Tetrachloroethene (Tetrachloroethylene)
2.0 U	UG/L	Cyclohexane	2.0 U	UG/L	1,3-Dichloropropane
3.6	UG/L	Vinyl Chloride	4.0 U	UG/L	Methyl Butyl Ketone
2.0 U	UG/L	Chloroethane	1.9 J	UG/L	Toluene
2.0 U	UG/L	Trichlorofluoromethane (Freon 11)	190	UG/L	Chlorobenzene
1.2 J	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	2.0 U	UG/L	1,1,1,2-Tetrachloroethane
2.0 U	UG/L	Methylene Chloride	0.44 J	UG/L	Ethyl Benzene
4.0 U	UG/L	Acetone	4.0 U	UG/L	(m- and/or p-)Xylene
2.1 J	UG/L	Carbon Disulfide	0.58 J	UG/L	o-Xylene
2.0 U	UG/L	Methyl Acetate	2.0 U	UG/L	Styrene
0.96 J	UG/L	1,1-Dichloroethane	2.0 U	UG/L	1,2,3-Trichloropropane
1300	UG/L	cis-1,2-Dichloroethene	2.0 U	UG/L	o-Chlorotoluene
2.0 U	UG/L	2,2-Dichloropropane	2.0 U	UG/L	p-Chlorotoluene
10 U	UG/L	Methyl Ethyl Ketone	5.2	UG/L	1,3-Dichlorobenzene
2.0 U	UG/L	Bromochloromethane	22	UG/L	1,4-Dichlorobenzene
68	UG/L	trans-1,2-Dichloroethene	77	UG/L	1,2-Dichlorobenzene
2.0 U	UG/L	Chloroform	2.0 U	UG/L	1,2-Dibromoethane (EDB)
2.0 U	UG/L	1,2-Dichloroethane	0.28 J	UG/L	Isopropylbenzene
2.0 U	UG/L	1,1,1-Trichloroethane	2.0 U	UG/L	n-Propylbenzene
2.0 U	UG/L	1,1-Dichloropropene	0.40 J	UG/L	1,3,5-Trimethylbenzene
2.0 U	UG/L	Carbon Tetrachloride	2.0 U	UG/L	tert-Butylbenzene
2.0 U	UG/L	Bromodichloromethane	0.40 J	UG/L	1,2,4-Trimethylbenzene
2.0 U	UG/L	Methyl Isobutyl Ketone	2.0 U	UG/L	sec-Butylbenzene
2.0 U	UG/L	1,2-Dichloropropane	2.0 U	UG/L	p-Isopropyltoluene
2.0 U	UG/L	Methylcyclohexane	2.0 U	UG/L	n-Butylbenzene
2.0 U	UG/L	Dibromomethane	4.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
2.0 U	UG/L	trans-1,3-Dichloropropene	2.0 U	UG/L	1,2,4-Trichlorobenzene
86 J	UG/L	Trichloroethene (Trichloroethylene)	2.0 U	UG/L	Hexachloro-1,3-Butadiene
0.18 J	UG/L	Benzene	2.0 U	UG/L	1,2,3-Trichlorobenzene
2.0 U	UG/L	Dibromochloromethane			
2.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery in the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

Trichloroethene J-qualified due to high % recovery in the LCS
All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1380** FY **2006** Project: **06-0127**

Volatiles Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF
Id/Station: NMW-8 /
Media: GROUNDWATER

Produced by: Hale, Sallie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/08/2005 16:10
Ending:

RESULTS	UNITS	ANALYTE	RESULTS	UNITS	ANALYTE
1.0 U	UG/L	Dichlorodifluoromethane	1.0 U	UG/L	cis-1,3-Dichloropropene
1.0 UJ	UG/L	Chloromethane	1.0 U	UG/L	Bromoform
1.0 U	UG/L	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0 U	UG/L	Bromobenzene
0.27 J	UG/L	Methyl T-Butyl Ether (MTBE)	1.0 U	UG/L	1,1,2,2-Tetrachloroethane
1.0 UJ	UG/L	Bromomethane	1.0 U	UG/L	Tetrachloroethene (Tetrachloroethylene)
1.0 U	UG/L	Cyclohexane	1.0 U	UG/L	1,3-Dichloropropane
1.0 U	UG/L	Vinyl Chloride	2.0 U	UG/L	Methyl Butyl Ketone
1.0 U	UG/L	Chloroethane	0.084 J	UG/L	Toluene
1.0 U	UG/L	Trichlorofluoromethane (Freon 11)	0.19 J	UG/L	Chlorobenzene
1.0 U	UG/L	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0 U	UG/L	1,1,1,2-Tetrachloroethane
0.12 J	UG/L	Methylene Chloride	1.0 U	UG/L	Ethyl Benzene
2.0 U	UG/L	Acetone	2.0 U	UG/L	(m- and/or p-)Xylene
1.0 UJ	UG/L	Carbon Disulfide	1.0 U	UG/L	o-Xylene
1.0 U	UG/L	Methyl Acetate	1.0 U	UG/L	Styrene
1.0 U	UG/L	1,1-Dichloroethane	1.0 U	UG/L	1,2,3-Trichloropropane
0.76 J	UG/L	cis-1,2-Dichloroethene	1.0 U	UG/L	o-Chlorotoluene
1.0 U	UG/L	2,2-Dichloropropane	1.0 U	UG/L	p-Chlorotoluene
5.0 U	UG/L	Methyl Ethyl Ketone	1.0 U	UG/L	1,3-Dichlorobenzene
1.0 U	UG/L	Bromochloromethane	1.0 U	UG/L	1,4-Dichlorobenzene
1.0 U	UG/L	trans-1,2-Dichloroethene	0.22 J	UG/L	1,2-Dichlorobenzene
1.0 U	UG/L	Chloroform	1.0 U	UG/L	1,2-Dibromoethane (EDB)
1.0 U	UG/L	1,2-Dichloroethane	1.0 U	UG/L	Isopropylbenzene
1.0 U	UG/L	1,1,1-Trichloroethane	1.0 U	UG/L	n-Propylbenzene
1.0 U	UG/L	1,1-Dichloropropene	1.0 U	UG/L	1,3,5-Trimethylbenzene
1.0 U	UG/L	Carbon Tetrachloride	1.0 U	UG/L	tert-Butylbenzene
1.0 U	UG/L	Bromodichloromethane	1.0 U	UG/L	1,2,4-Trimethylbenzene
1.0 U	UG/L	Methyl Isobutyl Ketone	1.0 U	UG/L	sec-Butylbenzene
1.0 U	UG/L	1,2-Dichloropropane	1.0 U	UG/L	p-Isopropyltoluene
1.0 U	UG/L	Methylcyclohexane	1.0 U	UG/L	n-Butylbenzene
1.0 U	UG/L	Dibromomethane	2.0 U	UG/L	1,2-Dibromo-3-Chloropropane (DBCP)
1.0 U	UG/L	trans-1,3-Dichloropropene	1.0 U	UG/L	1,2,4-Trichlorobenzene
1.0 U	UG/L	Trichloroethene (Trichloroethylene)	1.0 U	UG/L	Hexachloro-1,3-Butadiene
1.0 U	UG/L	Benzene	1.0 U	UG/L	1,2,3-Trichlorobenzene
1.0 U	UG/L	Dibromochloromethane			
1.0 U	UG/L	1,1,2-Trichloroethane			

Bromomethane J-qualified due to low recovery in the CCV
In the LCS/LCSD, carbon disulfide had low %rec and chloromethane a high RPD.

All other J-qualified compounds are >MDL but <MQL

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1762** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry | Clearwater, FL
Program: SF | Case No: 34942
Id/Station: 7924501665 / 792450166583 | MD No: 3CX3 | Inorg Contractor: SENTIN
Media: WATER

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 11/30/2005
Ending:

RESULTS	UNITS	ANALYTE
180 J	UG/L	Aluminum
60 U	UG/L	Antimony
10 U	UG/L	Arsenic
200 U	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
5000 U	UG/L	Calcium
10 U	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
100 U	UG/L	Iron
10 U	UG/L	Lead
5000 U	UG/L	Magnesium
15 U	UG/L	Manganese
0.20 U	UG/L	Total Mercury
40 U	UG/L	Nickel
150 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
210 J	UG/L	Sodium
25 U	UG/L	Thallium
50 U	UG/L	Vanadium
60 U	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1763** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSB01 / — MD No: 3CX4 — Inorg Contractor: **SENTIN**
Media: SUBSURFACE SOIL

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 09:30
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1300	MG/KG	Aluminum
0.89 R	MG/KG	Antimony
0.79 R	MG/KG	Arsenic
8.2 J	MG/KG	Barium
0.11 J	MG/KG	Beryllium
0.18 J	MG/KG	Cadmium
5400 J	MG/KG	Calcium
9.2	MG/KG	Chromium
0.35 J	MG/KG	Cobalt
11	MG/KG	Copper
880 J	MG/KG	Iron
35	MG/KG	Lead
170 J	MG/KG	Magnesium
8.6	MG/KG	Manganese
0.06 UJ	MG/KG	Total Mercury
7.7	MG/KG	Nickel
74 J	MG/KG	Potassium
4.9 U	MG/KG	Selenium
0.25 J	MG/KG	Silver
310 UJ	MG/KG	Sodium
3.5 U	MG/KG	Thallium
2.4 J	MG/KG	Vanadium
28 J	MG/KG	Zinc
NA	MG/KG	Cyanide
29	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1764** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSED01 / — MD No: 3CX5 — Inorg Contractor: **SENTIN**
Media: SEDIMENT

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 14:40
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1200	MG/KG	Aluminum
0.79 R	MG/KG	Antimony
0.62 R	MG/KG	Arsenic
5.7 J	MG/KG	Barium
0.06 J	MG/KG	Beryllium
0.20 J	MG/KG	Cadmium
18000 J	MG/KG	Calcium
53	MG/KG	Chromium
0.37 J	MG/KG	Cobalt
20	MG/KG	Copper
930 J	MG/KG	Iron
25	MG/KG	Lead
250 J	MG/KG	Magnesium
7.1	MG/KG	Manganese
0.02 UJ	MG/KG	Total Mercury
7.7	MG/KG	Nickel
98 J	MG/KG	Potassium
5.3 U	MG/KG	Selenium
0.33 R	MG/KG	Silver
440 UJ	MG/KG	Sodium
3.8 U	MG/KG	Thallium
3.1 J	MG/KG	Vanadium
57 J	MG/KG	Zinc
NA	MG/KG	Cyanide
34	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1765** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSED02 / — MD No: 3CX6 — Inorg Contractor: **SENTIN**
Media: SEDIMENT

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 15:10
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1200	MG/KG	Aluminum
0.76 R	MG/KG	Antimony
0.58 J	MG/KG	Arsenic
6.0 J	MG/KG	Barium
0.07 J	MG/KG	Beryllium
0.26 J	MG/KG	Cadmium
6200 J	MG/KG	Calcium
13	MG/KG	Chromium
0.44 J	MG/KG	Cobalt
18	MG/KG	Copper
1000 J	MG/KG	Iron
20	MG/KG	Lead
210 J	MG/KG	Magnesium
7.6	MG/KG	Manganese
0.02 UJ	MG/KG	Total Mercury
3.7 J	MG/KG	Nickel
90 J	MG/KG	Potassium
5.3 U	MG/KG	Selenium
0.34 J	MG/KG	Silver
360 UJ	MG/KG	Sodium
3.8 U	MG/KG	Thallium
3.6 J	MG/KG	Vanadium
57 J	MG/KG	Zinc
NA	MG/KG	Cyanide
34	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1766** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSED03 / — MD No: 3CX7 — Inorg Contractor: **SENTIN**
Media: SEDIMENT

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 15:40
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1000	MG/KG	Aluminum
0.82 R	MG/KG	Antimony
0.83 R	MG/KG	Arsenic
8.0 J	MG/KG	Barium
0.06 J	MG/KG	Beryllium
0.21 J	MG/KG	Cadmium
18000 J	MG/KG	Calcium
6.2	MG/KG	Chromium
0.78 J	MG/KG	Cobalt
10	MG/KG	Copper
1400 J	MG/KG	Iron
11	MG/KG	Lead
290 J	MG/KG	Magnesium
7.0	MG/KG	Manganese
0.04 UJ	MG/KG	Total Mercury
2.2 J	MG/KG	Nickel
100 J	MG/KG	Potassium
5.6 U	MG/KG	Selenium
0.20 R	MG/KG	Silver
440 UJ	MG/KG	Sodium
4.0 U	MG/KG	Thallium
4.4 J	MG/KG	Vanadium
55 J	MG/KG	Zinc
NA	MG/KG	Cyanide
37	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1767** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSED04 / — MD No: 3CX8 — Inorg Contractor: **SENTIN**
Media: SEDIMENT

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 16:10
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
340	MG/KG	Aluminum
7.6 U	MG/KG	Antimony
1.3 U	MG/KG	Arsenic
1.7 J	MG/KG	Barium
0.01 J	MG/KG	Beryllium
0.07 J	MG/KG	Cadmium
3800 J	MG/KG	Calcium
3.9	MG/KG	Chromium
6.3 U	MG/KG	Cobalt
4.6	MG/KG	Copper
210 J	MG/KG	Iron
3.0	MG/KG	Lead
56 J	MG/KG	Magnesium
1.6 UJ	MG/KG	Manganese
0.01 UJ	MG/KG	Total Mercury
0.84 J	MG/KG	Nickel
57 J	MG/KG	Potassium
4.4 U	MG/KG	Selenium
0.08 J	MG/KG	Silver
270 UJ	MG/KG	Sodium
3.2 U	MG/KG	Thallium
0.66 J	MG/KG	Vanadium
20 J	MG/KG	Zinc
NA	MG/KG	Cyanide
21	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1768** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSED05 / — MD No: 3CX9 — Inorg Contractor: **SENTIN**
Media: SEDIMENT

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 16:40
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
580	MG/KG	Aluminum
0.34 J	MG/KG	Antimony
1.3 U	MG/KG	Arsenic
2.4 J	MG/KG	Barium
0.03 J	MG/KG	Beryllium
0.19 J	MG/KG	Cadmium
1200 J	MG/KG	Calcium
9.1	MG/KG	Chromium
0.21 R	MG/KG	Cobalt
13	MG/KG	Copper
1300 J	MG/KG	Iron
11	MG/KG	Lead
71 J	MG/KG	Magnesium
2.7	MG/KG	Manganese
0.03 UJ	MG/KG	Total Mercury
2.5 J	MG/KG	Nickel
57 J	MG/KG	Potassium
4.5 U	MG/KG	Selenium
0.25 R	MG/KG	Silver
310 UJ	MG/KG	Sodium
3.2 U	MG/KG	Thallium
3.3 J	MG/KG	Vanadium
110 J	MG/KG	Zinc
NA	MG/KG	Cyanide
22	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1769** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSS01 / — MD No: 3CY0 — Inorg Contractor: **SENTIN**
Media: SURFACE SOIL

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 13:30
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1300	MG/KG	Aluminum
4.2 J	MG/KG	Antimony
30	MG/KG	Arsenic
27 J	MG/KG	Barium
0.06 J	MG/KG	Beryllium
1.5	MG/KG	Cadmium
26000 J	MG/KG	Calcium
140	MG/KG	Chromium
5.8 J	MG/KG	Cobalt
110	MG/KG	Copper
82000 J	MG/KG	Iron
190	MG/KG	Lead
460 J	MG/KG	Magnesium
320	MG/KG	Manganese
0.06 UJ	MG/KG	Total Mercury
150	MG/KG	Nickel
120 J	MG/KG	Potassium
1.8 J	MG/KG	Selenium
3.9	MG/KG	Silver
420 UJ	MG/KG	Sodium
3.5 U	MG/KG	Thallium
5.6 J	MG/KG	Vanadium
490 J	MG/KG	Zinc
NA	MG/KG	Cyanide
29	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1770** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSS02 / — MD No: 3CY1 — Inorg Contractor: **SENTIN**
Media: SURFACE SOIL

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 13:50
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
1400	MG/KG	Aluminum
1.7 R	MG/KG	Antimony
0.97 J	MG/KG	Arsenic
14 J	MG/KG	Barium
0.06 J	MG/KG	Beryllium
0.43 J	MG/KG	Cadmium
20000 J	MG/KG	Calcium
58	MG/KG	Chromium
0.71 J	MG/KG	Cobalt
47	MG/KG	Copper
1000 J	MG/KG	Iron
35	MG/KG	Lead
170 J	MG/KG	Magnesium
27	MG/KG	Manganese
0.05 UJ	MG/KG	Total Mercury
13	MG/KG	Nickel
73 J	MG/KG	Potassium
4.5 U	MG/KG	Selenium
0.10 R	MG/KG	Silver
390 UJ	MG/KG	Sodium
3.2 U	MG/KG	Thallium
2.7 J	MG/KG	Vanadium
200 J	MG/KG	Zinc
NA	MG/KG	Cyanide
22	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

Sample **1771** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWSS03 / — MD No: 3CY2 — Inorg Contractor: **SENTIN**
Media: SURFACE SOIL

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 14:10
Ending:

DATA REPORTED ON DRY WEIGHT BASIS

RESULTS	UNITS	ANALYTE
3100	MG/KG	Aluminum
0.68 R	MG/KG	Antimony
1.4 U	MG/KG	Arsenic
7.9 J	MG/KG	Barium
0.11 J	MG/KG	Beryllium
0.47 J	MG/KG	Cadmium
2200 J	MG/KG	Calcium
8.5	MG/KG	Chromium
0.46 R	MG/KG	Cobalt
30	MG/KG	Copper
830 J	MG/KG	Iron
32	MG/KG	Lead
140 J	MG/KG	Magnesium
5.9	MG/KG	Manganese
0.05 UJ	MG/KG	Total Mercury
3.7 J	MG/KG	Nickel
78 J	MG/KG	Potassium
4.8 U	MG/KG	Selenium
0.89 R	MG/KG	Silver
360 UJ	MG/KG	Sodium
3.4 U	MG/KG	Thallium
3.9 J	MG/KG	Vanadium
180 J	MG/KG	Zinc
NA	MG/KG	Cyanide
26	%	% Moisture

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1772** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF Case No: 34942
Id/Station: NMW1 / MD No: 3CY3 Inorg Contractor: **SENTIN**
Media: GROUNDWATER

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 11:00
Ending:

RESULTS	UNITS	ANALYTE
370 U	UG/L	Aluminum
60 U	UG/L	Antimony
3.7 R	UG/L	Arsenic
20 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
69000	UG/L	Calcium
3.2 J	UG/L	Chromium
0.88 R	UG/L	Cobalt
25 U	UG/L	Copper
6700	UG/L	Iron
10 U	UG/L	Lead
9700	UG/L	Magnesium
68 J	UG/L	Manganese
0.20 U	UG/L	Total Mercury
1.6 R	UG/L	Nickel
2100 J	UG/L	Potassium
35 U	UG/L	Selenium
1.3 R	UG/L	Silver
34000	UG/L	Sodium
25 U	UG/L	Thallium
8.6 J	UG/L	Vanadium
60 U	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1773** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry
Program: SF
Id/Station: NMW2 /
Media: GROUNDWATER

Clearwater, FL
Case No: 34942
MD No: 3CY4

Inorg Contractor: SENTIN

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 15:20
Ending:

RESULTS	UNITS	ANALYTE
620 U	UG/L	Aluminum
60 U	UG/L	Antimony
3.4 J	UG/L	Arsenic
22 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
27000	UG/L	Calcium
4.5 J	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
2500	UG/L	Iron
10 U	UG/L	Lead
9600	UG/L	Magnesium
9.8 UJ	UG/L	Manganese
0.20 U	UG/L	Total Mercury
40 U	UG/L	Nickel
3500 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
33000	UG/L	Sodium
25 U	UG/L	Thallium
16 J	UG/L	Vanadium
60 U	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1774** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF Case No: 34942
Id/Station: NMW3 / MD No: 3CY5 Inorg Contractor: **SENTIN**
Media: GROUNDWATER

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/08/2005 13:50
Ending:

RESULTS	UNITS	ANALYTE
14000	UG/L	Aluminum
60 U	UG/L	Antimony
4.1 J	UG/L	Arsenic
53 J	UG/L	Barium
0.40 UJ	UG/L	Beryllium
5.0 U	UG/L	Cadmium
6000	UG/L	Calcium
27	UG/L	Chromium
1.9 J	UG/L	Cobalt
7.9 UJ	UG/L	Copper
3500	UG/L	Iron
13	UG/L	Lead
3600 J	UG/L	Magnesium
3.8 UJ	UG/L	Manganese
0.09 UJ	UG/L	Total Mercury
5.7 J	UG/L	Nickel
1100 J	UG/L	Potassium
3.8 R	UG/L	Selenium
10 U	UG/L	Silver
48000	UG/L	Sodium
25 U	UG/L	Thallium
35 J	UG/L	Vanadium
2.5 UJ	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1775** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry
Program: SF
Id/Station: NMW4 /
Media: GROUNDWATER

Clearwater, FL
Case No: 34942
MD No: 3CY6

Inorg Contractor: **SENTIN**

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 14:30
Ending:

RESULTS	UNITS	ANALYTE
660 U	UG/L	Aluminum
60 U	UG/L	Antimony
10 U	UG/L	Arsenic
11 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
37000	UG/L	Calcium
7.1 J	UG/L	Chromium
1.9 R	UG/L	Cobalt
25 U	UG/L	Copper
1500	UG/L	Iron
2.1 UJ	UG/L	Lead
4000 J	UG/L	Magnesium
8.4 UJ	UG/L	Manganese
0.20 U	UG/L	Total Mercury
2.5 J	UG/L	Nickel
1600 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
44000	UG/L	Sodium
25 U	UG/L	Thallium
11 J	UG/L	Vanadium
6.9 UJ	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1776** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry
Program: SF
Id/Station: NMW8 /
Media: GROUNDWATER

Clearwater, FL
Case No: 34942
MD No: 3CY7

Inorg Contractor: **SENTIN**

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/08/2005 16:10
Ending:

RESULTS	UNITS	ANALYTE
340 U	UG/L	Aluminum
60 U	UG/L	Antimony
13	UG/L	Arsenic
19 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
84000	UG/L	Calcium
9.6 J	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
2400	UG/L	Iron
10 U	UG/L	Lead
11000	UG/L	Magnesium
36 J	UG/L	Manganese
0.20 U	UG/L	Total Mercury
5.6 J	UG/L	Nickel
910 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
23000	UG/L	Sodium
25 U	UG/L	Thallium
50 U	UG/L	Vanadium
60 U	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS | **EPA - REGION IV SESD, ATHENS, GA** | **Production Date: 03/08/2006 10:46**

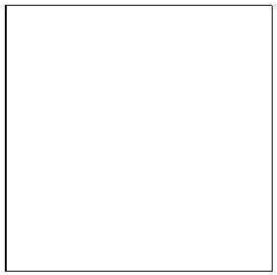
Sample **1777** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: HSAMW7 / — MD No: 3CY8 — Inorg Contractor: **SENTIN**
Media: GROUNDWATER

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 12:30
Ending:

RESULTS	UNITS	ANALYTE
930	UG/L	Aluminum
60 U	UG/L	Antimony
5.6 J	UG/L	Arsenic
32 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
52000	UG/L	Calcium
2.5 J	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
3800	UG/L	Iron
10 U	UG/L	Lead
3300 J	UG/L	Magnesium
17 J	UG/L	Manganese
0.20 U	UG/L	Total Mercury
40 U	UG/L	Nickel
2900 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
19000	UG/L	Sodium
25 U	UG/L	Thallium
44 J	UG/L	Vanadium
2.8 UJ	UG/L	Zinc
NA	UG/L	Cyanide



Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

METALS SAMPLE ANALYSIS **EPA - REGION IV SESD, ATHENS, GA** **Production Date: 03/08/2006 10:46**

Sample **1778** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry Clearwater, FL
Program: SF Case No: 34942
Id/Station: APWDUP01 / MD No: 3CY9 Inorg Contractor: **SENTIN**
Media: GROUNDWATER

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 11:00
Ending:

RESULTS	UNITS	ANALYTE
430 U	UG/L	Aluminum
60 U	UG/L	Antimony
10 U	UG/L	Arsenic
20 J	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
70000	UG/L	Calcium
2.7 J	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
6300	UG/L	Iron
10 U	UG/L	Lead
9600	UG/L	Magnesium
71 J	UG/L	Manganese
0.20 U	UG/L	Total Mercury
1.3 R	UG/L	Nickel
2100 J	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
34000	UG/L	Sodium
25 U	UG/L	Thallium
7.7 J	UG/L	Vanadium
8.2 UJ	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

Sample **1779** FY **2006** Project: **06-0144**

Metals Scan

Facility: Former Accurate Plating & Weaponry — Clearwater, FL
Program: SF — Case No: 34942
Id/Station: APWEB01 / — MD No: 3CZ0 — Inorg Contractor: **SENTIN**
Media: EQUIPMENT RINSE BLANK

Produced by: Appleby, Charlie
Requestor:
Project Leader: BSCHUSTE
Beginning: 12/07/2005 09:15
Ending:

RESULTS	UNITS	ANALYTE
170 UJ	UG/L	Aluminum
60 U	UG/L	Antimony
10 U	UG/L	Arsenic
200 U	UG/L	Barium
5.0 U	UG/L	Beryllium
5.0 U	UG/L	Cadmium
120 J	UG/L	Calcium
10 U	UG/L	Chromium
50 U	UG/L	Cobalt
25 U	UG/L	Copper
40 J	UG/L	Iron
10 U	UG/L	Lead
5000 U	UG/L	Magnesium
15 UJ	UG/L	Manganese
0.20 U	UG/L	Total Mercury
1.0 J	UG/L	Nickel
150 UJ	UG/L	Potassium
35 U	UG/L	Selenium
10 U	UG/L	Silver
410 UJ	UG/L	Sodium
25 U	UG/L	Thallium
50 U	UG/L	Vanadium
60 U	UG/L	Zinc
NA	UG/L	Cyanide

Cyanide Analysis Not Requested

U-Analyte not detected at or above reporting limit. | J-Identification of analyte is acceptable; reported value is an estimate. | UJ-Analyte not detected at or above reporting limit. Reporting limit is an estimate.
N-Presumptive evidence analyte is present; analyte reported as tentative identification. | NJ-Presumptive evidence analyte is present; analyte reported as tentative identification. Reported value is an estimate.
K-Identification of analyte is acceptable; reported value may be biased high. Actual value expected to be less than the reported value.
L-Identification of analyte is acceptable; reported value may be biased low. Actual value expected to be greater than reported value.
NA-Not Analyzed. | NAI-Not Analyzed due to Interferences. | A-Analyte analyzed in replicate. Reported value is "average" of replicates.
R-Presence or absence of analyte can not be determined from data due to severe quality control problems. Data are rejected and considered unusable.

APPENDIX D
WASTE MANIFESTS

WASTE MANAGEMENT

NON-HAZARDOUS MANIFEST

Please print or type. *(Form designed for use on elite (12-pitch) typewriter.)*

NON-HAZARDOUS MANIFEST

1. Generator's US EPA ID No.: VA[illegible] — Manifest Document No.: [illegible]

2. Page 1 of

A. Manifest Number: WMNA 10225159

3. Generator's Name and Mailing Address: FLORIDA DEPT. OF ENVIRONMENTAL PRO
1[illegible] CALUMET STREET
CLEARWATER, FL

B. State Generator's ID

4. Generator's Phone

5. Transporter 1 Company Name: [illegible]

6. US EPA ID Number

C. State Transporter's ID

D. Transporter's Phone: [illegible]

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: SPRINGHILL LANDFILL
4945 HIGHWAY 2[illegible]
CAMPBELLTON, FL [illegible]

10. US EPA ID Number

G. State Facility's ID: [illegible]

H. Facility's Phone: [illegible]

11. Description of Waste Materials	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.	I. Misc. Comments
a. MONITORING WELL SOIL CUTTINGS & PURGE WATER, NON-HAZARDOUS, NON-DOT REGULATED — WM Profile # [illegible]	009	DM	[illegible]	G	
b. WM Profile #					
c. WM Profile #					
d. WM Profile #					

J. Additional Descriptions for Materials Listed Above

Landfill ________ Solidification ________

Bio Remediation ________

K. Disposal Location

Cell   Level

Grid

15. Special Handling Instructions and Additional Information

Purchase Order #

EMERGENCY CONTACT: (850) 385-9890

16. GENERATOR'S CERTIFICATION:

I hereby certify that the above-described materials are not hazardous wastes as defined by 40 CFR Part 261 or any applicable state law, have been fully and accurately described, classified and packaged, and are in proper condition for transportation according to applicable regulations.

Printed/Typed Name: [illegible]
Signature "On behalf of": [signature]
Month Day Year: [illegible]

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: STEPHEN J. GARMA[illegible]
Signature: [signature]
Month Day Year: [illegible]

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name
Signature
Month Day Year

19. Certificate of Final Treatment/Disposal

I certify, on behalf of the above listed treatment facility, that to the best of my knowledge, the above-described waste was managed in compliance with all applicable laws, regulations, permits and licenses on the dates listed above.

20. Facility Owner or Operator: Certification of receipt of non-hazardous materials covered by this manifest.

Printed/Typed Name
Signature
Month Day Year

CWM - NHM - 1 - 5/97

#2 - GENERATOR #1 COPY

APPENDIX E

RESPONSE TO COMMENTS LETTER REPORT

TETRA TECH NUS, INC.
8640 Philips Highway ▫ Suite 16 ▫ Jacksonville, Florida 32308
(904) 636.6125 ▫ FAX (904) 636.6165 ▫ www.tetratech.com

Document Tracking Number 06JAX0107

August 25, 2006

Project Number 112C00138

Florida Department of Environmental Protection
Division of Waste Management
Bureau of Waste Cleanup
ATTN: Jay Koch
2600 Blair Stone Road, MS 4535
Tallahassee, Florida 32399-2400

Subject: Response to Comments
Preliminary Assessment/Site Inspection Report
Former Accurate Weaponry and Plating Site
Clearwater, Pinellas County, Florida

Dear Mr. Koch:

Tetra Tech NUS, Inc. (TtNUS) is pleased to submit this letter responding to the comments on the Draft Preliminary Assessment/Site Inspection (PA/SI) Report for the Former Accurate Weaponry and Plating Site located in Clearwater, Pinellas County, Florida submitted on June 29, 2006. The questions and/or comments provided to TtNUS from the Florida Department of Environmental Protection (FDEP) and Ms. Laurel Lockett of Carlton Fields Law Firm are addressed below.

Florida Department of Environmental Protection

1. **Page 2-3, Section 2.0 – Figure 2-2:**

Comment: "Is better resolution possible (for figure 2-2)?"

Response: Yes, Figure 2-2 has been corrected and will be included in the Final PA/SI Report.

2. **Page 2-4, Section 2.3 – Third Paragraph:**

Comment: "Delete (paragraph) per LL (Laurel Lockett)."

Response: This paragraph has been deleted.

3. **Page 4-9, Section 4.5 – First Bullet:**

Comment: "Compare (groundwater analytical data) to Federal MCLs."

Response: A comparison of Federal MCLs has been incorporated into Section 4.5 and Federal MCLs have been added to Table 4-5 Summary of Groundwater Analytical Data.

4. **Page 4-11, Section 4.5 – Table 4-5:**

Comment: "Look at (monitoring well) 3-D and (monitoring well) NMW-1?"

Response : Similarities do exist between the two aforementioned wells; however, the field data sheet for monitoring well NMW-3 indicates the duplicate groundwater sample (NMW-3-D) corresponds to both the Monitoring Well ID for NMW 3 and Contract Laboratory Program (CLP) ID from the groundwater sample collected from NMW-3.

5. **Grammatical Revisions:**

Grammatical revisions were completed for the following:

- Section 1.3, first bullet
- Section 3.4, second paragraph
- Section 7.0, eighth listed reference

Carlton Fields Law Firm

The following comments were provided by Ms. Laurel Lockett of Carlton Fields Law Firm via electronic mail to Mr. Jay Koch (FDEP) dated August 7, 2006:

1. **Comment: "...pls (please) be sure to add the NADC (Natural Attenuation Default Concentrations) numbers for comparison..."**

Response: The FDEP and TtNUS agree that the NADC values should not be used for comparison purposes during active assessments. These values are typically reserved for sites undergoing natural attenuation monitoring. This site is currently undergoing active assessment (i.e., not natural attenuation monitoring), and the NADC values provide no additional value to this assessment.

2. **Comment: "In Gable (table) 4-5, please add the results of (groundwater) duplicate sample NMW-03 next to that NMW-03, as the results are significant in that they showed no exceedances of GCTLs and that was "the worst" well"**

Response: The aforementioned duplicate sample, NMW-3-D, is listed adjacent to groundwater sample NMW-3 on Table 4-5 in the Draft PA/SI report reviewed. No revisions are required.

3. **Comment: "...On that table (Table 4-5) it would also be useful to add a footnote for the (groundwater sample) results on NMW-3, 7(HSAMW07), 8 (NMW-8), all of which had NTU > 10, and therefore are somewhat questionable as to metals results –particularly those that are only marginally above the GCTL".**

Response: A footnote will be added to Table 4-5 regarding sample turbidity. The turbidity values of the groundwater samples collected from the three aforementioned monitoring wells are listed below.

Monitoring Well ID	NTU Value[1]
NMW-3	898
HSAMW07	12
NMW-8	8.68

[1] As indicated on the respective field data sheets provided in Appendix A of the Draft PA/SI report reviewed.

The United States Environmental Protection Agency (USEPA), Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (EISOPQAM) indicate groundwater samples should be collected at 10 nephelometric turbidity units (NTUs) or less. The FDEP Standard Operating Procedures (SOPs) 001/01 for Groundwater Sampling (i.e., FS 2200) establishes the turbidity threshold for groundwater sampling at 20 NTUs.

As indicated above, NMW-8 is less than 10 NTUs and therefore has no relevance in this discussion.

HSAMW07 is greater than the USEPA turbidity threshold (i.e., 10 NTUs) but does not exceed the FDEP turbidity threshold (i.e. 20 NTUs). Analytical results indicated concentrations of aluminum [930 micrograms per liter (µg/L)] and iron (3,800 µg/L) were encountered in this well in excess of the FDEP Groundwater Cleanup Target Levels (GCTLs) of 200 µg/L and 300 µg/L, respectively. Based on the elevated concentrations above the respective GCTLs and the recorded turbidity value of this groundwater sample, the FDEP and TtNUS do not believe a filtered groundwater sample is warranted from this well.

NMW-8 is greater then the USEPA and FDEP turbidity threshold values. Filtered and unfiltered groundwater sample collection may be warranted from this well. It should be noted that this well is the only on-site deep well [approximately 66 feet below land surface (bls)] with a potentiometric surface elevation of approximately 45 feet bls recorded during groundwater sampling. As a result, analytical and geochemical results from this well should not be compared to groundwater samples collected from the shallow aquifer (i.e., potentiometric surface elevations ranging from 3.5 to 5.5 feet) at the Site.

The following comments are text revisions to the Draft PA/SI report provided by Ms. Laurel Lockett:

4. **<u>Page 4-9, Section 4.5 – First Bullet:</u>**

Comment: (add the following text to the end of the first bullet) "*...however; as noted below, the duplicate sample from NMW-03 (APW-DUP01) did not show exceedances of any GCTLs*, and 4 of the eight exceedances of GCTLs were from this well, two of which were estimated (J) values. In addition, only one parameter, cis-1,2-dichloroethene, was detected on site slightly in excess of the applicable Florida Natural Attenuation Default Criteria."

Response: The italicized portion of the above test will be added to the final PA/SI report. The FDEP and TtNUS agree the portions not italicized do not alter the findings of this report and will not be included.

5. Page 4-9, Section 4.5 – Second Bullet:

Comment: (add the following text to the end of the second bullet) "*...However; three of these wells exhibited elevated turbidity* (particularly NMW-03)."

Response: The italicized portion of the above text will be added to the final PA/SI report. The number of wells will be reduced from three to two. The mention of NMW-03 has already been established throughout the draft PA/SI report and will not be included in the final report.

6. Page 4-9, Section 4.5 – Third Bullet:

Comment: (insert the following text as a third bullet) "Manganese concentrations in both samples were estimated (J) values only; however, the background well showed elevated concentrations of manganese, suggesting that the on-site concentration of manganese is below or consistent with the background groundwater quality conditions."

Response: Comment noted and the text will be incorporated into final PA/SI report.

7. Page 4-9, Section 4.5 – Fourth Bullet:

Comment: (add the following text to the fourth bullet) "...however; the groundwater sample from this well (NMW-08) was slightly turbid and the well should be redeveloped and resampled or a filtered sample should be collected to confirm that the reported (metal) concentrations relates to a dissolved constituent."

Response: Turbidity values recorded from this well were 8.68 NTUs during groundwater sampling. This value is below the USEPA and FDEP turbidity threshold established for groundwater sampling. As a result, additional sampling will not be conducted from this well and the analytical results reported in the draft PA/SI will be reported in the final PA/SI report.

8. Page 4-9, Section 4.5 – Fifth Bullet:

Comment: (add the following text to the fifth bullet) "*...however; the background well reported the highest concentration (of iron) of 6,700 µg/L, suggesting that on-site concentrations are below or consistent with the background conditions.* Three other (groundwater) samples exhibited turbidity and elevated (iron) concentrations and may be related to sample turbidity."

Response: The italicized portion of this comment will be incorporated into the final PA/SI Report. The FDEP understanding on turbidity issues regarding this site has been established in previous comments; therefore, the last sentence will not be included.

9. Page 4-9, Section 4.5 – Sixth Bullet:

Comment: (add the following text to the sixth bullet) "...Since the test results from NMW-03 had the highest concentrations, firm conclusions regarding the groundwater quality at the Site cannot be drawn at this time."

Response: The FDEP and TtNUS do not agree with this comment. The purpose of this assessment was to provide adequate information to calculate the USEPA Hazard Ranking System (HRS) Score for the Site. This scoring process will still be completed using appropriate groundwater data from the Site.

10. Page 6-1, Section 6.0 – Sixth Paragraph:

Comment: [add the following text (only excerpt shown due to large word count of the comment) to the end of the sixth paragraph] "...however; due to turbidity and other quality control issues.....with the exception of cis-1,2-dichloroethene, which slightly exceeds the applicable Florida NADC in one well."

Response: This text will not be included in the final PA/SI report. This text assumes conclusions regarding inaccurate turbidity correlations to sample results and suggest a comparison of results to FDEP NADC values. The FDEP and TtNUS agree that this text does not alter the findings of this report.

11. Page 6-1, Section 6.0 – Seventh Paragraph:

Comment: Replace "CERCLA action" with "additional assessment" in this paragraph

Response: This site is currently listed on the USEPA Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database. This assessment and the subsequent HRS scoring of the Site will indicate if the Site should remain in the CERCLIS Database or be removed from the list; thus, any environmental actions conducted on this Site will be "CERCLA Actions" until the site is removed from the CERCLIS database.

If you have any questions regarding this correspondence or if I can be of assistance, please contact me at (904) 636.6125.

Sincerely,

Sean Rome
Project Manager

cc: Joe McGarrity, FDEP
TtNUS Project File